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THE GIFT OF

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ANNUAL REPORT

OF THE

SECRETARY OF WAR

FOR

THE YEAR 1888.

IN FOUR VOLUMES.

VOLUME I.

WASHINGTON:
GOVERNMENT PRINTING OFFICE,
1888,

PAYMASTER GENERAL'S
OFFICE.

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REPORT

OF

THE SECRETARY OF WAR.

WAR DEPARTMENT,
Washington City, November 30, 1888.

To the PRESIDENT:

I have the honor to submit the following annual report of the administration of this Department:

EXPENDITURES—APPROPRIATIONS AND ESTIMATES.

The expenditure of appropriations under direction of the Secretary of War, by requisitions upon the Treasury Department, from July 1, 1887, to June 30, 1888, was as follows:

Salaries and contingent expenses	\$1,972,053.97
Military establishment: Support of the Army and Military Academy.	23,337,245.11
Public works, including river and harbor improvements.....	9,158,516.63
Miscellaneous objects	6,697,291.36
Total.....	41,165,107.07

The appropriations to this Department for the fiscal year ending June 30, 1886, and prior years, and not expended, amount to the sum of \$1,125,357.21; which was carried to the surplus fund June 30, 1888.

The appropriations for the War Department for the present fiscal year ending June 30, 1889, are—

Salaries and contingent expenses	\$1,941,116.60
Military establishment: Support of the Army and Military Academy.	24,072,784.58
Public works, including river and harbor improvements.....	29,218,122.90
Miscellaneous objects	4,447,910.19
Total	59,679,934.27

The estimates of the War Department for the fiscal year ending June 30, 1890, are as follows:

Salaries and contingent expenses.....	\$1,978,890.00
Military establishment: Support of the Army and Military Academy.	25,293,372.97
Public works, including river and harbor improvements.....	13,785,234.72
Miscellaneous objects	3,575,009.84
Total.....	44,632,507.53

A statement in detail of appropriations, July 1, 1887, available for expenditure, of appropriations for the fiscal year ending June 30, 1888, and of the expenditure during the year and the balances on hand July 1, 1888, required to be submitted to Congress by section 228 of the Revised Statutes, is appended to this report.

The estimates for the fiscal year ending June 30, 1890, have received the careful consideration of the Department; they are fully explained in the Book of Estimates, and it is not believed they are in excess of the requirements of the service, so far as the military establishment is concerned. The estimates for river and harbor improvements represent the probable cost of such improvements if approved by Congress.

THE ARMY.

The Major-General commanding the Army reports that, at the date of the last consolidated returns, there were 2,188 officers and 24,549 enlisted men in the Army, divided as follows:

	Officers.	Enlisted men.
Generals	9	.....
General staff	574	1,971
Ten regiments of cavalry	437	6,843
Five regiments of artillery	283	2,437
Twenty-five regiments of infantry	885	10,563
Indian scouts		197
Detachments, recruiting parties, etc.		2,539
Total	2,188	24,549

The death of General Sheridan in August last deprived the Army of a chief pre-eminently fitted for such command, whose wide experience, ready resources, and personal qualities made him a tower of strength in counsel and action. This is not the occasion for eulogy, but those associated with him in the performance of official duty have felt his loss keenly as a personal sorrow, and will ever rejoice to have had the privilege thus to know him.

The retirement of Major-General Terry, by reason of disability incurred in the line of duty, was followed by the promotion of Brigadier-General Crook to the grade of major-general; and Col. John R. Brooke, Third Infantry, to be brigadier-general in his place.

These changes and promotions have rendered other changes necessary in the commands of divisions and some departments. By direction of the President, Major-General Schofield has been detailed to the command of the Army, with headquarters at Washington. General Howard has been transferred from the Division of the Pacific to the Division of the Atlantic, Major-General Crook to the Division of the Missouri, and Brigadier-General Miles to the command of the Division of the Pacific. Brigadier-General Brooke has been assigned to the Department of the Platte, and Colonel Grierson, Tenth Cavalry, to the Department of Arizona.

In the Division of the Atlantic no material changes have been made in the distribution of troops. They have been occupied in target-firing, and practice with such arms and material as are available. The buildings, forts, and other military works in this division are in much the same condition as described in recent reports of this department, everywhere needing reconstruction, addition, and repair; while the armament remains as described by General Schofield in his report of last year.

The Chiricahua Apache Indians are still at Mount Vernon Barracks, Alabama. They numbered at the last report, October 31: Men, 83; women, 170; boys, 70; girls, 59; in all, 382 persons. The commanding officer states that they are in good health and contented; that a detail of 35 men is employed daily, except on Sunday, cleaning the grounds, getting out material for and building huts, and other fatigue duty about the post, and that both men and women are generally occupied in cutting, hauling, and gathering wood, and attending to their duties in camp. The children, when old enough to receive instruction at Carlisle or Hampton, are sent to those schools. The adult Indians are not received there. During last summer some kind friends of the Indians requested permission to send two teachers to Mount Vernon Barracks. The Department readily accepted the proposal, and the teachers are now engaged in their charitable work. Accommodations are provided for them, and some portions of the buildings are made available for school rooms. The teachers are paid by the ladies who entered upon this labor. They seek to instruct the adults as well as the children. They thus perform a work for which no funds are provided in this or in the Interior Department.

Numerous applications have been made to this Department by societies and individuals desiring that these Indians should be returned to their reservation in Arizona, and especially that those of their number not actually engaged in their later raids, or who had served the Government as scouts in the pursuit and capture of those of their brethren who were on the war-path, should be released. A protest is made against the retention of these people in custody at Mount Vernon Barracks.

As there seems to be some misapprehension as to the status of these Indians and of the attitude of the Government toward them, a brief statement may not be out of place here.

The history of our troubles with these warlike and dangerous Indians begins with our occupation of the Rio Grande Valley after the Mexican war.

During the survey of the Mexican boundary by a joint commission of the two countries, an Apache was killed by a Mexican teamster; this resulted in a vigorous war, which the Apaches waged on each side of the line. Within our territory they were subdued by our troops, and in 1860 peace seemed to be almost completely restored. But on the breaking out of the rebellion all our troops were withdrawn, exposing

Arizona and New Mexico to the Apaches and their old enemies the Mexicans. A period of lawlessness and violence followed, during which these Territories were the prey of Mexican bandits, Indians, and the outcasts and desperadoes of our own frontier. This condition of things practically continued until the autumn of 1872.

In 1871 the people of Arizona petitioned the President for more adequate protection, representing that within the short space of three or four years 400 of their scanty population had been killed. This number can not be charged to the Apaches alone, but shows the state of things in which the Apaches took a prominent part. General Crook was sent to the command of the Department of Arizona, and after much negotiation, in which General Howard seems to have been engaged, the Chiricahua Apaches were removed to a reservation, the southern boundary of which was the Mexican line. No troops were then placed over them, and being, as they claimed, from the conditions of the convention made with General Howard, subject to no supervision or discipline, they raided on the wretched Mexicans as before. This state of things continued until 1876, when, having killed some Americans, the Government determined upon stricter supervision, and they were removed to the San Carlos Reservation.

Many of them objected to this. All of them did not go; a portion remained in New Mexico, others in the Sierra Madre Mountains in Mexico, and a band under a chief named Victorio went on the war path, leaving a pathway of blood through New Mexico and Chihuahua. This band of Victorio's finally surrendered to the Mexicans, who put them all to death. The number of lives taken in this raid in 1876 has never been ascertained.

The condition of those at San Carlos was not favorable to their comfort or content. They chafed under restraint; the management was bad, corrupt, and dishonest. They complained that their rations, blankets, and stores were stolen and sold in the towns, probably with much truth, for the Commissioner of Indian Affairs, together with the inspector and agent on duty, were compelled to resign. But what may have been the merits of the case it is unnecessary to consider here. It is sufficient to say that the Indians became turbulent and excited, and in March, 1882, they left San Carlos and broke for the Sierra Madre Mountains to the number of 710, including the women and children. During this outbreak, which continued until June 15, 1883, when they surrendered to General Crook, their number was reduced to 512. They killed and murdered, often under circumstances of great atrocity, a large number of persons. In a raid conducted by "Chatto," with a party of 26 Indians, 13 persons were killed in New Mexico and Arizona; the number thus destroyed in Mexico is not known.

For two years after the surrender to General Crook these Indians were not on the war-path and not a person was killed by them—the first experience of the kind in the history of Arizona. During this period

many of the Chiricahuas, among others "Chatto," evinced an earnest desire to earn their own living in agricultural pursuits, and opened up small farms near Camp Apache. But difficulties again arose, mainly on account of differences due to a division of jurisdiction with the Interior Department, and in May, 1885, not quite one-fourth of the Apaches under Geronimo broke away from the reservation. The rest remained faithful under Chatto, and many of them rendered good service as scouts in the several expeditions for the capture of Geronimo and his band. Geronimo again surrendered to General Crook in Cañon Embridos, Sonora, Mexico, March 27, 1886, but the following night a part broke camp and resumed their deadly work, and finally surrendered to General Miles in September, 1886. This raid was the most bloody and savage, so far as the number of persons killed, of which we have authentic record. Between the first outbreak and their final surrender they killed on our side of the line 72 persons, and in Mexico 24, as nearly as can be computed, and created a condition of panic and distress in New Mexico and Arizona difficult to describe. Men, women, and children were shot down, mutilated, and tortured, and a reign of terror prevailed all along the boundary line. When taken their lives were spared, and circumstances prevented their being turned over to the civil authorities to be punished for their crimes; but every consideration of duty and humanity required that they should be removed from that country, and that its people should never more be endangered by their presence.

It is to be borne in mind that when these Indians were placed on the San Carlos Reservation they were put in the custody of the War Department, to be guarded by troops and to be treated and held as prisoners of war. The Interior Department was unable to keep or restrain them and was forced to hand them over to military control, and has been and now is unwilling to receive them. Their status was thus established, and they could be placed or confined wherever the public safety demands, and are entitled only to humane and proper treatment. This status they never have escaped from or lost, whether acting as scouts or coming to Washington by permission as a deputation to persuade the President that they be permitted to remain at San Carlos permanently. And if while so engaged, or after they had concluded such duty or mission, the public safety, or their safe custody, demanded any change in their destination or control, it was entirely within the discretion of the Government. When relieved from control their violence and savagery was only limited by their powers of endurance. Once relieved from strict restraint we have no reason to believe they would be peaceable; on the contrary, there is every reason to fear that numbers of them would return to the war-path again when the opportunity came.

It was decided by all those in any way responsible for their safety and conduct that they must be removed from Arizona—not only those who had been on the war-path, but their kindred and people. Some of

these had served as scouts and were with General Crook when Geronimo first surrendered, and it has been contended that they connived at his escape, and that while on the war-path this desperate band received aid and comfort from their brethren who resided at San Carlos. But there is a division of opinion on this subject, which it is not possible to properly discuss here. The short term of imprisonment which was suggested as sufficient by the military commander to whom they surrendered was disapproved by the President and by General Sheridan, and no terms but removal for an indefinite period was contemplated by those on whom the responsibility rested for the peace of these Territories and the lives of their people. Not only is it necessary that they should be kept away from Arizona, but General Howard, in command of that division, is of opinion that other branches of the Apache tribe now in Arizona should also be removed, and says "there is but one relief from the Indians located near San Carlos, and that is their removal from the Territory." It may also be mentioned here that last spring an Indian left Mount Vernon Barracks carrying with him an Indian girl of twelve, and while absent he inflicted upon this child a series of assaults, not to be described, and she was brought back bruised, wounded, and suffering from his brutality.

Various plans have been suggested; the most promising one by General Armstrong, to place them on a farm near Fort Munroe; but there were serious objections urged from many quarters, and it was deemed impracticable. It is very desirable to secure some place where the climate is suitable and opportunity may be had to instruct and employ them in agriculture. Meantime the work, if not of reformation, certainly of amelioration and softening of their savage qualities is making progress, and they are as contented and happy as they can be anywhere outside of Arizona, for it is to be remarked that they cling to that spot, and would resolutely resist and would be very unhappy if moved to any other permanent home.

In the Division of the Missouri the only difficulty with the Indians that has occurred was upon the Crow Reservation in the Department of Dakota. A threatened outbreak was promptly suppressed by General Ruger, and the ringleaders were arrested and punished. Rifle practice has been conducted with great zeal throughout this division. On this subject General Crook says:

Our present instructions, both in tactics and in rifle firing, are purely elementary, and it may be said also theoretical. Each runs in a groove of its own; each is made an end in itself without regard to the other; the tactics contains a system of firing, the firing manual a system of fighting tactics, of which one is obsolete and the other incomplete; neither would find application in war. In nations that continue long at peace warfare becomes a theory. The specialist develops his specialty to the exclusion of other branches of the military art, of equal or perhaps of greater importance. This is a fault which is avoided in nations of recent war experience, where we find not only that all exercises are in the highest degree practical, but that all are directed toward one common end; the grooves are not parallel but convergent. In these nations the elements of the various branches are first mastered, they

are then united with each other, and from the union results a complete system which is a true preparation for the realities of war. Applying these remarks to the subject in hand it seems evident that exercises combining both manœuvres and firing at properly placed figure targets, at absolutely unknown distances, are essential to complete the education of officers and men, and it is earnestly hoped that action may be taken to improve our system in the direction indicated.

Another aspect of this subject seems worthy of attention. The rifle is an infantry weapon, and the carbine itself is for use by cavalry when dismounted. Practice in the use of the rifle and carbine has, however, been made general for all arms of the service. It would seem that proficiency in the use of the infantry weapon by other arms has been attained at the sacrifice, to a certain extent, of a proper degree of skill in the use of their own special and distinctive weapons. To this extent the present general application of our system of rifle practice detracts from the efficiency of the Army as a whole, which requires that each of the several arms should be thoroughly proficient in its own peculiar mode of action.

In the Division of the Pacific there have been no disturbances among the Indians. The troops have been fully occupied in rifle practice and the duties of instruction in camps, marches, and field operations, as if engaged in actual Indian warfare. The attention of Congress is called to the state of affairs pointed out in the report of Major-General Howard, that some steps are necessary to protect the rights of one of the most harmless and peaceful of the Indian tribes on the Round Valley Indian Reservation. An attempt was made to repel the intruders with the aid of troops. The local courts issued injunctions against the officer in command and General Howard. The suits were transferred to the courts of the United States, and the troops withdrawn, and thereupon, at the request of the plaintiffs, the suits were discontinued. The intruders remain in possession of nearly the whole reservation. So gross an outrage upon the Indians and so clear a violation of law should not pass unnoticed.

The system of artillery practice with heavy sea-coast guns has been steadily developed, is now completed, and will be adopted for the entire sea-coast of the country. The efficiency of officers and men in the Division of the Atlantic, and the progress already made, give assurance that the troops will be prepared to use with effect guns of modern construction and the largest caliber, when provided under recent appropriations. An increase in the strength of the artillery will be necessary properly to deal with such guns, and the Commanding General renews his recommendation of last year that two regiments be added to the artillery without increasing the number of officers.

The military schools in the Army are all doing very good work, including the artillery school at Fort Monroe, the infantry and cavalry school at Fort Leavenworth, and the engineer school at Willets Point. In addition to these, the construction of buildings at Fort Riley, Kans., for a cavalry and light artillery school combined has been begun. This school will also include the training of horses and the instruction of recruits for the mounted service. The commanding officer of the infantry and cavalry school has reported that a number of officers have

failed to meet the professional requirements of that institution, and the Commanding General submits that these officers have proved themselves incompetent and are debarred from regular promotion under paragraph 36 of the Army Regulations, and suggests that the necessary examinations for promotion of officers of the line are now sufficiently provided for by law in the paragraph of regulations above referred to, and recommends that hereafter no officer of infantry, cavalry, or artillery, who has been officially reported by his commanding officer for disability or other incompetency, shall be promoted to a higher grade until he shall have passed a satisfactory examination, to be prescribed by the War Department.

In this connection I desire to call attention to a recommendation contained in my report for 1886 in regard to examinations of officers for promotion, and to renew the same, for the necessity for such examinations is growing more and more evident and is enforced upon us by this recommendation of the commanding general:

It should be borne in mind that it has been and still is the policy of the Government to rear and train at West Point young men from all portions of the Republic to be soldiers. No expense is spared to give them the best military education possible. Only those who succeed in passing the tests of rigid examinations are selected for the public service. So severe is the ordeal through which they pass that but one in three succeeds in graduating. Nor is expense spared in providing for these young men thus educated when they take their places in the Army, for the pay of our officers is higher through all its grades than that of any other army save the Anglo-Indian army. And yet, after thus preparing and providing for them, there are no special requirements, common to all, demanding their progress and growth in the profession of arms; and no inquiry is made, or examination had, as the years go by, and they advance, grade after grade, whether as individuals they are worthy of promotion, and are equal to the higher rank and larger responsibilities they are forced to assume. When a second lieutenant enters the service, whether from civil life, the ranks of the Army, or from the Military Academy at West Point, the rigid examination above alluded to is made the necessary condition for the commission. But this once passed, under present regulations, the officer can, and but too frequently does, close his books and his studies; and if he does not overwork or expose himself, he knows that, with good health and life, he is certain, under the operation of compulsory retirement, to reach the highest grade open to seniority in his arm of the service.

I assume it to be true in the Army, as elsewhere, that no man should occupy a position for which he is not fitted; and it is equally true that there should be some way in the Army, as elsewhere, through which such fitness should be ascertained. It may also be assumed that no men are so well fitted to determine the capacity or incapacity of a candidate for a place as those who have already filled the place and are familiar with its requirements and its duties. It would seem, therefore, that no objection can reasonably be urged against an examination as a condition of promotion, the same to be conducted by officers of higher grade. This should not be a competitive examination, but simply such an examination as would demonstrate the fitness of a candidate for promotion properly to perform the duties of the grade to which he aspires. It should be a professional examination, having reference to the mental, moral, and physical fitness of the candidate. Its object is plain—the advancement and elevation of the service. Surely there can be no reasonable objection to this test on the part of those who will be subjected to it.

Examination as a means of ascertaining fitness for promotion is no longer an experiment in the Army. It has been in operation in the Medical Corps since 1934,

when an act was passed requiring examination to precede admission to the corps as first lieutenant, and another examination must be passed before promotion to the rank of major. (4 Stat., 714.) In 1863 examination was required as a necessary preliminary to promotion up to the grade of field officer in both the Engineer and Ordnance Corps. This still continues in force in the Engineer Corps. (12 Stat., 743.) In 1874 an act was passed with regard to the Ordnance Corps, providing that no appointment or promotion therein should be made until the officer so appointed or promoted should have passed a satisfactory examination before a board of ordnance officers senior to himself. (18 Stat., 245.) In all these corps the result has been so satisfactory that its propriety and necessity are no longer questioned, and no one would think of returning to the earlier system. While the nature of the examination for the line of the Army and for the staff would differ materially, there would seem to be every reason to believe that it would be equally for the advantage of each. It should therefore be extended to the line of the Army, and no distinction made between different arms of the same service; thereby implying that an examination was needed for one class not demanded for the other. The necessity for such examination has already been demonstrated in two of the staff corps by the failure of officers to pass their examinations, and their consequent suspension from promotion; while the rule of promotion by seniority, unqualified by any examination as to fitness, frequently allows the promotion, in the line of the Army, of men incompetent and unfit for service.

Soldiers are developed and matured rapidly on the battle-field, but in time of peace it is only by study and application, by practical experiment, by exercise in the use of weapons, and by keeping fully abreast of the world's knowledge, that the soldier can be made ready for his real work, when it comes. If he gets his promotion and his pay, and his rank and authority through lapse of time, and a perfunctory routine performance of his daily duty without offense, why should he labor and strive for a higher excellence? If he is of better and truer mettle than to be content and indifferent, and does strive and labor and learn, he gets no more than he who is idle and waits. It is the presumption of fitness and superiority, because of seniority, that makes seniority a ground for promotion; but, like all presumptions, it may be rebutted, and, if the man is shown to be unfit, the reason utterly fails.

In the Navy, examination for promotion to a higher grade in the service has been the law since 1864. This examination is intended to ascertain the officer's "mental, moral, and professional fitness to perform all his duties at sea;" and it must also appear that a board of surgeons has pronounced him "physically qualified to perform all" those duties (R. S., sec. 1493-1510). All agree that these examinations have been of great benefit to our naval service, and can not be abandoned.

In the English army, examinations are required for promotion up to the grade of field officer. In the Austrian, an examination is required on entering the service, and another, which is very exacting, for the grade of field officer. In the German army, examinations are required.

Such investigation as we have been able to make in this department fails to disclose any service except our own where, in the line of the Army, seniority alone is the rule of promotion.

I would therefore suggest for the consideration of Congress that a general law be enacted, with provisions respecting examination similar to those which govern promotion in the Navy, with such changes and limitations, in regard to the number of examinations, and to what grades of rank and to what arms of the service they shall be extended, as may be considered necessary in applying the law to the Army.

Desertions from the Army continue in large numbers, as in previous years, but from investigations recently made it appears that 80 per cent. of the desertions occur before the expiration of the second year of service. This leads the Adjutant-General and the Inspector-General

to recommend that the term of service be reduced, and that section 1119 of the Revised Statutes be amended accordingly. The Commanding General reports that 10 per cent. of the Army deserts each year, and as a remedy he recommends that the reward for the apprehension of a deserter be increased to \$100, and re-imbursed out of his retained pay; that United States marshals, their deputies, and all sheriffs, constables, and police officers be authorized by law to arrest and deliver deserters; that at least one-half of the pay of soldiers be retained until their enlistment has expired, and that in time of peace the soldier be allowed to dissolve his contract of enlistment by paying the expenses incurred in the enlistment, clothing, and transportation of a recruit to supply his place. In short, the Commanding General says: "Make it practicable for a soldier to terminate a contract with which he has become dissatisfied in a fair and honorable way, and make his punishment as sure as possible if he attempts to terminate it in a dishonorable way."

There is now no provision of law whereby an enlisted man can be punished for any offense against good order and discipline except through the proceedings of a court-martial. It is well said by one general officer, in commenting on this subject, that "courts-martial, by becoming too common, lose their force and influence, and their tendency is continually to lessen an officer's sense of responsibility and the care that the subordinate should have for the authority of his commander."

It is worthy of consideration whether the officers in command of troops at military posts or the captains of companies should not be authorized to impose punishment for minor offenses. But in granting such authority it will be necessary to specify the extent and character of the punishment for each offense, otherwise there would be no uniform rule, nor would it be wise to repose so large a discretion upon a single officer.

A statute might be framed resembling those in other countries, and providing that for certain minor offenses slight punishments may be imposed, like deduction of pay, short imprisonments, deprivation of privileges, etc., which would reduce the number of trials, do equal justice to offenders, and in the end prove beneficial to the discipline of the service. Upon an examination of the British military law on this subject, it appears that a commanding officer of the rank of captain and above may administer summary punishment for drunkenness and absence without leave, confinement not to exceed twenty-eight days, and a fine, not to be imposed except in cases of drunkenness, and then not to exceed ten shillings, with a right of appeal to a court-martial in case of a fine. In addition to these provisions of law, rules of procedure are issued by the Crown, authorizing the commanding officers to administer punishment for less grave offenses than those above recited. The desire for this change is almost universal in the Army, and it would result in great benefit to both officers and enlisted men.

There are three provisions the enactment of which would materially aid in the administration of military justice.

(1) In my report for 1885, and repeated in 1886, attention is called to the decision of the Supreme Court that a police officer of a State, or a private citizen, has no authority as such, without any warrant or military order, to arrest and detain a deserter from the Army of the United States. It was then stated that this decision will deprive the Army, in arresting and securing deserters, of the assistance of civilians and police officers, who have heretofore rendered valuable services in that direction. It has always been considered that arrests could be thus made for the purpose of delivering as soon as possible the offender to the military authorities, and that the rule of the common law in that regard could properly be followed. The importance of securing such assistance is so manifest, in cases where it is not always possible to have in the hands of the party who is able to arrest the deserter a written warrant or military order, that I feel called upon again to suggest that a statute be enacted applying the common-law rule to deserters, authorizing their arrest, as in cases of felony, by private citizens or police officers, for the purpose of surrendering them to the proper authorities for trial.

(2) Attention is invited to the condition of the law with regard to civilian witnesses. The result of a decision by the Attorney-General, to the effect that a court-martial has no power to punish a civilian witness for refusing to testify, leaves the court in a condition which may at times lead to an entire failure of justice. This subject was referred to in last year's report, and the suggestion is renewed that a statute should be enacted whereby an attachment against such witness for contempt would issue upon application to a United States court.

(3) That it should be determined by law to what extent the statute of limitations applies to cases of desertion from the Army, and how far minors are liable to military jurisdiction after enlistment.

THE MILITARY ACADEMY.

The Board of Visitors for the present year reports that in thoroughness of discipline and instruction the Military Academy is not excelled, if indeed it is equaled, by any other literary or scientific institution in our country; that the fiscal affairs and police administration are conducted in a systematic and exact manner, and the Board is unable to suggest any improvement in the methods now used.

The following recommendations are submitted by the Board:

(1) That a number of small buildings, in a dilapidated and disgraceful condition, used as quarters for married soldiers and their families, and for storage purposes, should be removed and suitable structures substituted.

(2) That the Academy grounds and buildings should be lighted by electricity.

(3) That a new academic building, in accordance with the plans and estimates heretofore submitted to Congress, a separate building for the department of natural and experimental philosophy, and a new gym-

nasium, should be erected. These buildings are much needed, indeed are necessary for the proper instruction of the cadets.

(4) That the tract of land known as the Kinsley estate, consisting of about 200 acres, lying contiguous to the south line of the reservation, between it and Highland Falls, should be purchased as necessary for the welfare of the Academy and the maintenance of the discipline required in such an institution.

In these recommendations I heartily concur, with the exception of that regarding electric lights in the grounds and buildings.

THE MILITIA.

The increase of the annual appropriation for arming and equipping the militia, with authority to issue quartermaster's as well as ordnance stores, has given a manifest impetus to the militia. The report of the Adjutant-General shows an increase in the number returned from the various States of 9,547 since July 1, 1887; and it is believed that the efficiency has more than kept pace with the increase of numbers. Under the rules now prescribed the greater part of the militia appear for duty in the uniform of the United States Army.

The act of February 12, 1887 (24 Stat., 401), to provide ordnance and quartermaster's stores for the militia requires that the purchase or manufacture of such stores shall be made "as such arms, ordnance, and quartermaster's stores and camp equipage are now manufactured or otherwise provided for the use of the Regular Army;" and consequently a portion of the appropriation for clothing and camp and garrison equipage for the Army is temporarily used for supplying such stores. When clothing and camp and garrison equipage are issued to the militia near the close of the fiscal year it is not possible in some cases to re-imburse the proper appropriation from the appropriation for "arming and equipping the militia" in time to provide for its expenditure, and that amount is therefore lost to the Army appropriation and carried to the surplus fund by operation of law. To remedy this it is recommended that the appropriation for "clothing and camp and garrison equipage" for the fiscal year 1890 and thereafter, together with all credits and repayments to said appropriation, be made available until exhausted. Such legislation already exists in regard to ordnance stores.

All the States and Territories now have an active militia sufficient under the regulations to entitle them to receive ordnance and quartermaster's stores from the United States, excepting the State of Arkansas and the Territories of Arizona, Idaho, and Utah.

It is hoped that very soon practical instruction in sea-coast defenses and the handling of heavy artillery may be given to the militia, and the officers of the Army may be relied upon to give a zealous and cordial assistance.

ADJUTANT-GENERAL'S DEPARTMENT.

At the militia encampments in the several States there were present ~~many~~ regiments, 10 independent battalions, and 20 troops of cavalry

or batteries of artillery, showing an increasing appreciation of a "well-regulated militia." From the reports of officers detailed to inspect encampments it appears that the personnel is excellent, the drill is generally fair as also the discipline, while the arms and equipments are good, but not of uniform pattern. The adjutant-general suggests that more attention should be given to skirmish drills and military signaling; that a suitable shoe of uniform pattern should be made part of the equipment; that small camps should have two guard mounts daily of twelve hours each, and that future details to large encampments should consist of one officer to act as assistant adjutant-general to the command, and one to each regiment.

In the colleges to which officers are detailed, military instruction would be more successful if it was made part of the curriculum of study and all students of proper age, not physically disqualified, were required to attend lectures, recitations, and drills.

The numerous changes in the regulations of the Army make a new edition an imperative necessity, and one is now in progress, and it is hoped will be issued early in 1889.

The Adjutant-General recommends the amendment of section 1119, Revised Statutes, and the reduction of term of enlistment from five to three years. One of the principal causes of desertion is undoubtedly the distant prospect of release from a service which for some reason has been made distasteful. On application for discharge, except in cases of minors or old soldiers, favorable action should be conditional on the re-imbursement of the expense of recruiting and transportation, or the payment of a fixed sum, say \$100. Since the creation of the retired list for enlisted men by the act of February 14, 1885, 245 veterans have been placed on the list; 22 have died, leaving 223 as its present strength. He renews his recommendation that the pay of non-commissioned officers be re-adjusted on a scale of \$25 per month for the lowest position to \$50 or \$55 for the highest. This grade is intermediate between the enlisted private and the commissioned officer, and the line of demarcation should be as decidedly marked on the descending as on the ascending scale. The position is responsible, and at present a private on extra duty receives more pay than the sergeant-major or quartermaster's sergeant of a regiment.

At the military prison the administration of affairs has been satisfactory, and the regular inspections have been made. The number of prisoners on June 30, 1888, was 488. Forty-four officers, soldiers, ex-soldiers, and military prisoners have been admitted to the Government Hospital for the Insane during the past year.

The work of the pension branch of the Adjutant-General's Office and kindred divisions has been satisfactory. The total number of calls from all sources on hand October 1, 1887, was 31,553; received during the year, 196,988; finished during the year, 211,239; leaving on hand October 1, 1888, 17,302; of these but 10,426 are Pension Office calls. Early

in the spring of this year the divisions of the Adjutant-General's Office occupying rented buildings were assigned quarters in the State, War, and Navy Building, and the transfer was effected with the least possible derangement of business. The number of claims for amendment of muster disposed of since last March, when the "Re-muster Division" was created, is 3,446, leaving 6,119 claims on hand, all of which, it is expected, will be cleared off by the end of May next. The work of the "Deserter's Division" is practically up to date. The "Volunteer Register Division" has been engaged since last March in preparing "record slips" of military service. By this system the question of the preservation of the rolls is practically solved. Five thousand one hundred and fifty-six individual histories have been completed and verified; they represent five regiments, and obviate reference to 1,034 rolls. In addition, 13,015 record slips have been made, which, when verified, will permit the filing away of 3,149 rolls.

INSPECTOR-GENERAL'S DEPARTMENT.

This report is made by Col. R. P. Hughes, Inspector-general in temporary charge of the office, on account of the illness of Brig. Gen. Roger Jones, and he refers to the retirement of Brig. Gen. Absalom Baird, at the age of sixty-four years, forty-three of which have been devoted to the public service.

The money accounts of four hundred disbursing officers have been inspected and supervised during the year, and the detailed itemized reports are transmitted as required by law.

The report recommends that officers who wish to go abroad in order to gain a more thorough insight into the condition and requirements of their profession should be encouraged to do so, and not subjected to a reduction of pay while so engaged. The men now enlisting are of as good quality as can be expected, but a larger per cent. of recruits are foreigners, and a strong effort should be made to secure the enlistment of men who are native-born. He accordingly recommends that authority be delegated to each regiment to secure its own recruits, assigning to each regiment a certain geographical district from which to draw them; also that no married men be allowed to re-enlist, that no authority be granted hereafter to soldiers to marry, and that no married recruits be accepted under any circumstances; and that all soldiers be compelled to learn to read and write.

He states that there has been a slight increase in the number of desertions in some departments, while in others there has been a small decrease; that in the Department of the Platte over 80 per cent. of the desertions occurred before the expiration of the second year of enlistment, and suggests that this subject be investigated with a view to determine whether the rule is general that four-fifths of the desertions from the Army are in the first two years of enlistment; and if so, that legislation be requested reducing the term of enlistment to two years with a re-enlistment period of five years.

The general instruction of the men is fair. A gymnasium should be provided for each garrison and a progressive system of athletic exercises adopted which would give the men a thorough "setting up." The cavalry, as such, does not appear to be found in a very satisfactory condition. The instruction of the batteries of light artillery seems to be sufficiently good for the guns and materials now supplied, but much of the wagon drill should disappear with the introduction of the new steel gun, and a thorough course of theoretical and practical instruction should be provided for in advance. The introduction of the new guns should be accompanied with a liberal supply of materials for target practice. So much of the course of "Blunt's Rifle and Carbine Firing" as relates to the firing at the known ranges and as skirmishers is carried on with great zeal and intelligence, and the result is that on known ground or at known distances it does not seem to be overstating the case in saying that the exactness of many of our garrisons borders on the marvelous, but reports from inspectors indicate that the instruction in estimating distances is very indifferently taught.

The examination of trials by courts-martial show that occasionally men have been convicted of theft and permitted to return to the ranks after suffering a fine and a short period of confinement. A dishonest soldier is as much out of place in our ranks as a burglar on the police force of a city. There is great need of legislative action authorizing summary punishments for petty offenses. This subject is treated in another portion of this report.

The supplies furnished by the Quartermaster's Department give very general satisfaction, but the forage allowance for horses is too large for garrison duty. The regulations governing the purchase of cavalry horses might be changed, so far as relates to age. The reports of inspectors are, as a general rule, very flattering to the Subsistence Department, but there is a want of skill in the cooks of the Army.

The Army has been promptly paid.

Complaint is justly made that there is no established measurements to which the engineers stationed at department and division headquarters draw the maps which are prepared from time to time. It is not unusual to find in an office a collection of departmental maps that contain the latest information, but no two of which are drawn to the same scale. The new carbine boot issued to the cavalry does not appear to meet universal satisfaction. The reports indicate that the withdrawal of the experimental magazine rifles from the hands of the troops was unpopular with the Army.

The reports from colleges where army officers are serving as instructors show that effort is made to instruct the students in practical rifle firing, but that the annual allowance of ammunition for this purpose is entirely inadequate. By a generous supply of ammunition to these colleges for target practice it is possible that competitive contests

in rifle shooting might, in time, become as popular with some of these inland colleges as boat-racing now is at the universities of our sea-board.

JUDGE-ADVOCATE-GENERAL'S DEPARTMENT.

The Acting Judge-Advocate-General reports an increase of trials by general courts-martial during the year of 90, and by inferior courts-martial of 1,041. He recommends anew that provision be made for punishment of minor offenses without summoning a court-martial and also again urges the necessity of limiting by legislation the powers of punishment by courts-martial. Of the thirty-four Articles of War, thirty-two authorize imprisonment at discretion of the court, without limit, and this extreme latitude is unnecessary, unwise, and contrary to the spirit of the times. Legislation on these subjects, and on others affecting the administration of military justice, was strongly advocated in the last report of the Secretary of War, and the Acting Judge-Advocate-General hopes the suggestions then made may have consideration.

The necessity of providing law libraries for the offices of division and department judge-advocates is strongly presented, and an appropriation of \$5,000 is deemed sufficient for the purpose.

QUARTERMASTER'S DEPARTMENT.

At the beginning of the last fiscal year there remained in the Treasury applicable to expenses of prior years the sum of \$1,469,239.56.

There was appropriated for the fiscal year the sum of \$9,218,057.67. The balance undrawn on the 30th of June, 1888, was \$1,317,503.57.

The construction of army buildings from the current appropriation has been authorized during the fiscal year to the extent of \$188,252, and the cost of authorized repairs to buildings at the several military posts has amounted to \$284,620, also taken from the current appropriation for the Army, making a total of \$472,872 from the current appropriation for barracks and quarters. The remainder of the sum appropriated for barracks and quarters for the Army, about \$147,128, was required for payments of rents, miscellaneous accounts, etc. It should be stated that the sum appropriated, \$620,000, is found to be inadequate to meet the necessities of the service; there are more than one hundred large posts to be maintained and kept in repair, besides the new constructions required by the re-adjustment of the several regiments to adapt their stations to the changing interests of the country.

Sufficient buildings to accommodate four companies of troops have been completed at the new military post near Atlanta, Ga.

Contracts for the erection of part of the necessary buildings, etc., at Fort Riley, Kans., have been made and the work is now in progress.

The Department of Justice having rendered a favorable opinion on the title proposed to be conveyed to the United States of the tract of

land known as the Highwood tract in Lake County, Ill., the deed of conveyance has been duly accepted. Plans for the necessary buildings, sewerage, etc., are in course of preparation.

The United States having secured a good and sufficient title to a tract of land containing 640 acres, situated in Arapahoe County, Colo., selected as the site for the new post at Denver, Colo., by the Lieutenant-General, the lowest bid received, under the customary advertisement for the erection of barracks, quarters, etc., amounting to \$97,750, has been accepted, and the work of construction has begun.

The Department of Justice having rendered a favorable opinion on the validity of the title to the land selected as a site for the military post at Newport, Ky., the full amount of the purchase money, viz, \$43,100, has been paid therefor, and plans have been approved for the erection of some of the buildings required at an aggregate cost of \$92,058.

The new army building, New York City, remains unfinished.

For the improved water supply at military posts, the sum of \$328,708 was authorized and expended.

The Army and Navy General Hospital at Hot Springs, Ark., is practically completed and is now a hospital of the Army.

The President of the United States, on September 1, 1887, set apart a certain tract of land in Utah Territory within the limits of the Uintah Indian Reservation, for military purposes, in connection with the post at Fort Du Chesne. Also, on September 26, 1887, a tract of land in the State of Colorado was set apart for military purposes in connection with the post to be established near Denver, Colo., pursuant to act of Congress approved February 17, 1887.

Fort Carlin, Nev., has been transferred to the Interior Department as no longer needed for military purposes.

Transportation has been provided by the Quartermaster's Department for 366,012 persons, including 326,633 transported and ferried by Government vessels, 115,629 tons of material, and 1,677 animals during the fiscal year, at a cost of \$1,067,243.92, of which \$345,019.96 has been paid for the transportation of persons and \$722,223.96 for the transportation of live stock and freight, leaving \$283,051.97 due at the close of the fiscal year. These amounts are for actual transportation only. Other sums and purchases payable from the Army transportation appropriation have swelled the total expense to \$2,506,182.97, of which \$416,784.70 apparently remained unpaid at the close of the fiscal year.

The total cost of exchanging stations of regiments during the fiscal year was \$212,646.29, of which the sum of \$10,460.61 was drawn from the appropriation pertaining to the fiscal year 1889, as a portion of these movements was not completed in the fiscal year ending June 30, 1888. The transportation necessary for the above movements has as a rule been secured by the Quartermaster's Department at special rates, lower than the ordinary rates charged by the railroads, thereby saving to the

Government about \$50,000.00. The cost for telegraphing on army business during the fiscal year amounted to \$7,004.10.

Nine hundred and twenty-four cavalry and artillery horses were purchased during the fiscal year, at an average cost of \$137.59 per head. Also thirty draft horses, at an average cost of \$201.73 per head; and five mules, at an average cost of \$180 per head. There were on hand June 30, 1888, 6,036 cavalry and artillery horses, 316 team horses, 4,444 mules, and 6 oxen.

Under act of Congress amending section 1661 Revised Statutes, making appropriation to provide arms and equipments for the militia of the States and Territories, the Quartermaster's Department is charged with the duty of purchasing quartermaster's stores and equipments. The total value of the clothing and equipage issued to the militia during the fiscal year was \$112,638. This amount has been credited to the allotments for the several States and Territories. The clothing and other supplies furnished by the Quartermaster's Department to the Army have been satisfactory.

The amount expended for the purchase of clothing and materials for Indian prisoners of war confined at Fort Pickens, Fla., and Mount Vernon Barracks, Ala., was \$3,542.02, and the estimated value of the clothing issued to these Indians during the past fiscal year was \$4,157.29, making a total of \$7,699.31.

There were, at the close of the fiscal year, eighty-two national cemeteries. The roadways authorized by Congress leading to the Richmond and Danville, Va., and the repairs to the roads leading to the Vicksburg, Miss., national cemeteries have been completed; and under the appropriation for repairs to roadways constructed by special authority of Congress, repairs have been made to the roads leading to the Chalmette, La., Fort Scott, Kans., Knoxville, Tenn., Mound City, Ill., Natchez, Miss., New Albany, Ind., and Springfield, Mo., national cemeteries; the cost of the same amounting to \$2,500.

The success attending the establishment of the new system of messing by commands instead of by companies, which has been put in operation at the recruiting depots, has been so marked as to justify the belief that its adoption at all military posts would contribute largely to the comfort and especially the contentment of the troops. Those directly charged with the administrative duties connected with the new system testify not only to its great success, but its approval by all officers who have had an opportunity of examining its workings, and that in the matter of labor and expense it was a great improvement on the system of company messing.

The objections made to the extension of this system of messing to military posts are that it interferes with the administrative control of captains; that inconvenience would result when companies are detached from the post for special service, and that it would involve additional expense.

The first two objections can readily be removed by the adoption of suitable regulations governing the new system, and the last, that of additional cost, will be more than compensated by the better preparation of the food and the savings this system would effect to the departments of supply.

Convinced from former reports and a personal inspection of the workings of the system that good results must flow from its adoption, I have directed that in preparing plans for some of the new military posts provided for by Congress provision should be made for messing the troops by commands instead of by companies. The service is much indebted to Capt. George H. Cook, quartermaster at David's Island, for the skill and intelligence with which he has constructed the consolidated messing kitchen and hall at that post, and attention is called to his report on the subject, annexed to the report of the Quartermaster-General.

SUBSISTENCE DEPARTMENT.

The Commissary-General presents the usual statistics of his department for the fiscal year ending June 30, 1888. He expresses the belief that no change in the components of the ration, either as to quantities or qualities of the articles, is now required, or is advisable. He believes that the ration as issued would be found entirely satisfactory if the recommendations heretofore made were adopted, so that no part of the proceeds of savings from the ration should go to the post fund, but all to the company fund, and no part of such savings should be expended for any purpose or articles whatever other than articles of food.

In connection with the question of the sufficiency of the ration he appends an interesting paper read before the Ninth International Medical Congress in September, 1887, on the subject of the best ration for the soldier.

He renews former recommendations that authority be obtained from Congress for the enlistment of a cook to each troop, battery, and company, and to each general depot of recruits, and of a baker to each garrisoned post.

MEDICAL DEPARTMENT.

The Surgeon-General reports that the money value of medical and hospital supplies issued during the year was \$178,034.14; that the cost of supplies for the current year will undoubtedly exceed that amount; and estimates that the total expenses for the next fiscal year will require an appropriation of \$230,000, of which not less than \$48,000 should be appropriated for the pay of civilian employes of the Medical Department. He again urges that Congress be requested to authorize the purchase of supplies costing less than \$500 without the formality of written contracts. Under existing law five copies of each contract must be made, and in many cases the cost of the clerical labor involved equals the cost of the articles purchased. The adoption of the amendment to

section 3709 Revised Statutes recommended in my annual report for the year ending June 30, 1886, would result in practical economy in this respect.

The annual statistics show that the substantial improvement in the health of the Army noted in the last annual report still continues. This is largely the result of the increased attention which has been paid to the hygiene of the Army, and the consequent changes for the better which have been effected in the sanitary condition to which the troops are subjected. It is believed that these conditions are still susceptible of great improvement, especially with regard to the construction of quarters, water supply, drainage, bathing facilities, food, clothing, and the disposal of night-soil. The development of a general plan for the remedy of existing evils is a matter of much moment, and it is proposed to intrust it to a board of officers selected for their especial fitness for the work, and representing different branches of the service, including the Medical Department.

The admissions to sick report during the year numbered 29,727, giving an admission rate of 1,247 per 1,000 of mean strength; the admission rate for the previous year was 1,233, and for the previous decade 1,672 per 1,000 of mean strength. Twenty per cent. of the admissions to sick report were due to injuries. The deaths numbered 214; of these 65 were due to injury and 149 to disease. The discharges for disability numbered 714; of these 66 were for injury and 648 for disease.

Jefferson Barracks, Missouri, still bears the unenviable distinction of being the unhealthiest post of the Army, although the proportionate amount of sickness is less than during the previous year.

The report of the record and pension division of the Surgeon-General's Office shows that the satisfactory condition to which the public business was brought in the previous year has been maintained. While 47,834 official calls were made upon it during the year, for evidence in pension and other claims against the Government, all were promptly taken up and acted on, and but 430 remained on hand at the close of the year, all of which were in the hands of the clerks, and none of which had been three days in the office.

The work on the individual index-record cards, showing the medical history of soldiers, which was begun in the previous year, has advanced satisfactorily, 1,839,349 of these cards having been made up to the close of the fiscal year. The cards are now used in place of the old records, and search for medical evidence is greatly assisted thereby, while at the same time the valuable original records are safe from destructive handling.

The advantages of this system of index-record cards are summed up as follows: They answer all the purposes of a copy or duplication of the valuable records which, from constant handling, have been fast going to destruction; their alphabetical arrangement in order of surnames under each regiment will obviate tedious, and in some cases unsuccessful,

search of the original records; a soldier's medical history can be readily furnished in cases where it is impossible to obtain any data upon which to search, other than his name and military organization; and, finally, should it be desired to print the hospital records, the index-cards, which contain everything recorded in the registers, are in the best possible form to send to the printer.

The museum contains 26,695 specimens, an increase of 623. The annex building for entomological and pathological laboratories has been completed but is not yet occupied, owing to the delay in appropriating funds for furnishing it properly. The library collection contains 130,614 books and pamphlets, an increase of 10,961. Volume IX of the Index-Catalogue has been published and distributed, and the first part of Volume X is in press.

The third part of the third volume of the Medical and Surgical History of the War is now being issued, and completes this valuable work.

The most favorable results have followed the organization of the Hospital Corps. Some embarrassment is experienced, however, owing to a discrimination against the privates of the corps in the matter of pay; to remedy this bills were introduced in both houses of Congress early in the past session, providing for an increase of \$6 per month, but they were not acted on.

The contract with the Providence Hospital in this city for the support and treatment of transient paupers, pursuant to act of Congress of March 3, 1887, has been satisfactorily fulfilled. There were admitted to the Army and Navy General Hospital, at Hot Springs, Ark., 111 patients, 50 per cent. of whom were returned to duty cured. It is believed that all of the enlisted men who were restored to duty by the use of the waters at this place would, without this course of treatment, have been discharged the service for disability, and their services lost to the Army.

There are sixteen officers of the Medical Department who are incapacitated for active service. The loss of the services of so many officers seriously embarrasses efficient administration. As a consequence, some important military stations are left without medical officers, and others have but one where two or more are needed. The deficiency is supplied by the employment of citizen practitioners by the visit, or by contract, an expensive and unsatisfactory procedure. These evils can only be remedied by enlarging the retired list by legislation, so as to permit the retirement of the disabled officers, and the appointment of young and active men to fill the resulting vacancies. In the interest of the whole Army as well as of the Medical Department such legislation is urgently required.

The main building for the Army Medical Museum and Library with annex complete was transferred to the charge of the Surgeon-General of the Army November 1, 1887. To provide necessary accommodation for laboratory and anatomical work Congress appropriated \$7,500 on

March 3, 1887, and a second annex has been added for this purpose. The grounds and paths around the building have been graded and put in order.

PAY DEPARTMENT.

The disbursements of the current year amount to \$14,461,702.99, showing an increase of \$231,346.13. This increase is due to the number of claims for back pay, bounty, etc., of which payment was deferred until authorized by the acts of February 1, 1888, and March 30, 1888, under which 12,681 claims have been paid, leaving but 85 unpaid. Inasmuch as every claim of this nature must be acted on by Congress before it can be settled great delays ensue, and the Paymaster-General recommends legislation to facilitate settlements of adjusted claims, and thus prevent the injustice to which claimants are now exposed.

The system of monthly payments to the troops has been concurred in by Congress, but the increase in the number of paymasters to 40, as previously recommended, has not been approved of. The present force comprises 43 officers, of whom 38 are available for disbursing duty. Monthly payments have been established at 41 posts, and from a thorough investigation of the various divisions of the Army it appears that with the present force the system can be extended to 38 new posts, making 79 out of a total of 141. To apply it to the remaining 62 posts 12 additional paymasters will be required. As to the benefit of the system the Paymaster-General has no information on which to base an opinion, but he proposes to test it to the fullest extent possible with the force at his command.

Mileage appropriations for the year ending June 30, 1888, amounting to \$125,308.70, have proved insufficient, and claims for over \$5,000 now await settlement; the table of distances is under revision to meet present conditions of travel.

Deposits by soldiers amount to \$386,944.10; while the aggregate sum is less, the number of deposits and of depositors during the year is greater.

ENGINEER BUREAU.

The attention of Congress is again invited to the defenseless condition of our sea-coast and lake frontiers. The last appropriation for the permanent defenses of the country was made in 1875, and has long since been exhausted. The importance of immediate and liberal action looking to the effective defense of our principal sea-ports has been fully set forth in previous reports, especially in that of November 30, 1886. It would appear now more important than ever that such action should be taken at the second session of the present Congress in view of the fact that the last session gave appropriations for the construction of heavy ordnance. Without heavy platforms, strong armored protection, and other permanent emplacements, these guns and mortars when finished will be of comparatively little use.

The building of modern gun and mortar batteries requires longer periods of time than the construction of the armament. It would appear the part of wisdom that the preparation of these two important components of a well equipped defense should proceed simultaneously. For the beginning of the construction of such defenses an appropriation of \$2,840,000 is asked for.

For the preservation and repair of the existing works, many of which are still of great value for secondary defense or as important parts of the contemplated new primary defense, no funds have been available since the appropriation of March 3, 1885. The consequent rapid and extensive deterioration is fully set forth in the report of the Chief of Engineers. For the preservation and repair of existing works \$200,000 is requested.

Torpedoes and submarine mines are now acknowledged by all nations to be absolutely necessary to the efficient defense of harbors and sea-ports. For the purchase of these, and the necessary appliances for operating them, for experimenting to ascertain the best of the many torpedo inventions, and for the continuing of the construction of the necessary casemates, cable galleries, etc., for working the submarine mine and torpedo systems, \$1,890,000 is recommended. A torpedo-shed for the storage of torpedo material for use in San Francisco Harbor, to cost about \$22,000, should also be constructed.

The Engineer School of Application at Willets Point has continued its good work under many disadvantageous circumstances. General practical instruction to the younger engineer officers has been given, and several artillery officers have taken a special course in torpedo service. Attention is invited to the report of the Chief of Engineers on the subject of the post of Willets Point and the engineer depot and Engineer Battalion.

For the incidental expenses of the depot, for purchase and repair of instruments, the purchase of material for instruction, for the library, and for a model room, \$20,000 is requested.

Rivers and harbors.—The river and harbor act passed during the second session of the Forty-ninth Congress failing to become a law, the works for the improvement of rivers and harbors have been prosecuted during the last fiscal year with funds derived from balances remaining on hand from the appropriations of the act of August 5, 1886, together with such few remnants of former appropriations as were available. In many instances, these being barely sufficient to provide for the care of the public property pertaining to the works, operations were necessarily suspended, to the great detriment of the improvements concerned. The report of the Chief of Engineers sets forth the condition of each improvement, the extent of the work performed during the past fiscal year, and the amount of money expended. In compliance with the provisions of the river and harbor act of March 2, 1867, estimates are presented of

the amount that can be profitably expended during the fiscal year ending June 30, 1890, together with the probable cost of completion.

Such of the reports of examinations and surveys for improvements at places required and provided for in the river and harbor act of August 5, 1886, as were not inserted in the annual report of the Chief of Engineers for the fiscal year ending June 30, 1887, were separately transmitted to Congress during the present session as received.

A statement is given in the report of the Chief of Engineers of the action taken during the past fiscal year upon plans and locations of bridges proposed to be built over navigable waters under authority of Congress and subject to the approval of the Secretary of War. Examinations were also made, whenever requested by committees of Congress, of proposed bills authorizing the construction of bridges upon which the views of the War Department were desired. A statement is also given of the work accomplished in the removal of wrecks obstructing or endangering navigation, for which provision is made in the river and harbor act of June 14, 1880, and enlarged by the river and harbor act of August 2, 1882.

Under section 4 of the river and harbor act of August 4, 1886, which requires the Secretary of War to report to Congress whether any bridges, causeways, or structures now erected, or in process of erection, do or will interfere with free and safe navigation, and if so, to report the best mode of altering or constructing the same; and which also requires a report to be made to Congress of all cases in which piers, breakwaters, locks, and dams, or other structures or works built or made by the United States in aid of commerce or navigation are used, occupied, or injured by a corporation or individual, and the extent and mode of such use, occupation, or injury, the Chief of Engineers was directed to report thereon as required by the act. A communication enumerating all instances of interference with free and safe navigation, not previously reported to Congress, was transmitted to the House of Representatives December 10, 1887, and on January 3, 1888, enumerating in like manner instances of the use or the occupancy of, or injury to, public works.

Improvement of South Pass, Mississippi River.—The record of this work, in last annual report of the Department, was brought down to September 29, 1887. Since that date the channel has been maintained, as required by law, for the full period of one year, to September 29, 1888, for which payments have been made amounting to \$100,000. There has also been paid \$50,000 for one year's interest on the \$1,000,000 retained, making the total expenditures to September 29, 1888, inclusive, \$5,600,000.

During the year mentioned there has been no failure in the maintenance of the channel.

Under the provisions of the act of March 3, 1875, and amendatory acts, one-half of the \$1,000,000 remaining as security in the possession

of the United States is to be released and paid to James B. Eads, his assigns or legal representatives, when the prescribed channel shall have been maintained for ten years, and as such period of maintenance will in all probability expire during the fiscal year 1890, an estimate for an appropriation of \$500,000 has accordingly been submitted for the action of Congress. Should the appropriation not be made then, under the provisions of the act of March 3, 1875, the Secretary of the Treasury is directed to issue the bonds of the United States, bearing five per cent. interest, to said Eads or his legal representatives, in payment at par of the warrant issued by the Secretary of War, as directed in the same act.

Water supply of Washington, D. C.—The work of lining the tunnel with masonry had advanced September 1, 1888, in its total length to 13,080 feet, and there remained to be lined at that date 7,616 feet. The tunnel work was stopped on September 30, 1887, when the appropriation became exhausted. The deficiency act, approved March 30, 1888, appropriated the sum of \$355,000 to complete the tunnel. On the reservoirs the work under contract was completed in October, 1887. The construction of the influent and effluent gate-houses, necessary before water can be let in, has been begun.

The Potomac Flats.—In execution of the plan projected for this improvement, there has been dredged a channel from 350 to 550 feet wide and 20 feet deep, between Georgetown and Giesboro Point. The Washington channel has been dredged to a width of 350 feet and 20 feet deep, all the material being deposited on the flats, and up to the present time about 544 acres have been reclaimed from the overflow of ordinary high tide. Of the 12,000,000 cubic yards required to raise the flats to the proposed height of 3 feet above the highest freshets, about 6,511,000 have been deposited. On June 30, 1888, the expenditure for this improvement amounted to \$1,247,495, less than half the estimated cost of the whole work.

A communication was transmitted to the House of Representatives February 18, 1888, calling attention to the probability of damage to this improvement, as well as to the water front of the city, from ice gorges and freshets and to the necessity of rebuilding, without delay, the Long Bridge, with wide spans and open piers, offering the least resistance to the flow of water in order to avert such damage. The right to repeal or annul the act of June 21, 1870, permitting the Baltimore and Potomac Railroad to use this bridge was reserved to Congress.

Attention is called to the report upon the construction of roads and bridges in the Yellowstone National Park, and to the necessity of further appropriation for this purpose. The number of visitors increases yearly, and in order that the Park may be fully maintained for the purpose for which Congress intended it, its various objects of interest should be made readily accessible. Owing to the lateness of the session at which appropriations are frequently made by Congress, the season when expenditures can be made here to the best advantage is

lost for the fiscal year. It is therefore recommended, in order that work may be done at the most favorable time of the year, that appropriations for this object be made without limit, as is the case with the items of the river and harbor acts.

The small appropriation stated in the estimates for surveys required for military purposes, for the publication of maps, including lake charts and local surveys, and for additions to the engraved plates for the use of the War Department, is earnestly recommended.

BRIDGES OVER NAVIGABLE WATERS.

Attention is called to a recommendation in my report of 1885, and repeated in the reports of 1886 and 1887, that action is required on the part of Congress in the case of navigable streams within the limits of a State. Until Congress assumes control of such subject the power of a State over bridges across navigable streams within its limits is plenary.

The Attorney-General has decided that section 8 of the River and Harbor act of 1884 does not prevent the erection of bridges that obstruct such streams; and the ninth and tenth sections of the River and Harbor act of 1888 seem only to authorize the bringing of suits and a punishment by fine for obstruction. There are some cases where a railroad company could afford to pay the fine of \$500 per month rather than make a proper bridge.

It is therefore suggested that some action should be taken by Congress to enforce the rights of the United States in navigable streams within the limits of a State, and thus give effect to the duty resting upon the Government to protect navigation thereon.

ORDNANCE DEPARTMENT.

During the fiscal year ending June 30, 1888, 41,130 rifles and carbines have been manufactured at the National Armory. Repairing arms, providing spare parts, making swords, sabers, and miscellaneous articles may be mentioned among its operations.

The investigations have been completed to determine the charge and projectile, rifling, chamber, etc., for an arm of smaller caliber than the present service piece. It is the intention to use compressed and perforated cartridges, but as yet the powder makers have not succeeded in producing a satisfactory powder, the desired velocity being accompanied by too great a pressure. This matter of a suitable powder is still under study and trial. The results obtained in France with the Lebel rifle seem to point to a radical change in the manufacture of powder for small-arms.

At the last session of Congress a law was passed authorizing "the construction of an arsenal for the repair, storage, and distribution of ordnance and ordnance stores for the use of the Government of the United States, at Columbia, Tennessee," and appropriating \$200,000 for its establishment. The law provides that without cost to the United States

not less than 50 acres of suitable land shall be conveyed in fee to the United States, and that exclusive jurisdiction over the same shall be ceded by the State of Tennessee. A tract of land covering about 70 acres immediately outside the city limits has been examined and accepted; the title to the same is now under examination by the Department of Justice. When these provisions of law have been complied with, steps will be taken to construct the arsenal.

All ordnance supplies are procured, after advertisement and competition, under section 3709 Revised Statutes. There are cases constantly occurring at our manufacturing establishments where small supplies are required. Under the present system of advertising such purchases entail loss upon the Government because higher prices are asked when sealed proposals are required, and there is a disinclination on the part of dealers and manufacturers to bid for small purchases, and there is a loss by delay in this mode of purchase. This refers to minor supplies, the necessity for which can not be anticipated. To meet such cases, and in the interest of a true public economy, it is recommended that section 3709 be amended by inserting after the word "services," on the first line, the words "in excess of two hundred dollars," so that the section shall then read:

Sec. 3709. All purchases and contracts for supplies or services in excess of two hundred dollars, in any of the Departments of the Government, except for personal services, shall be made by advertising a sufficient time previously for proposals respecting the same, when the public exigencies do not require the immediate delivery of the articles or performance of the service. When immediate delivery or performance is required by the public exigency, the articles or service required may be procured by open purchase or contract, at the places and in the manner in which such articles are usually bought and sold or such services engaged between individuals.

The Interior Department makes purchases in open market to the amount of \$500 under existing law.

The firing of the 8-inch breech-loading gun has been continued during the past year as rapidly as suitable powders could be procured and as other important work would permit. Much delay has occurred from the failure of the powder makers to reproduce or duplicate powders accepted as satisfactory. The gun has been fired 203 rounds, and is in sound and serviceable condition. This firing has produced light but distinctly visible erosion marks on the front slope of the powder chamber, the shot chamber, and the bottom of the rifled bore. The firing will be continued until the endurance is thoroughly tested. Experience indicates that the erosion increases rapidly as the pressures increase, and the pressures during the test of this 8-inch gun have averaged over 16 tons, and reached as high as 22 tons, per square inch of powder chamber. The gun is in the hands of the board for testing rifled cannon and projectiles, and its report will be rendered during the coming year.

The 12-inch breech-loading rifled mortar, cast-iron, hooped with steel, has been subjected to preliminary firing by the Ordnance Board, with

the object of determining suitable kinds and weights of charge, to cover all ranges from 1 to 6 miles, without exceeding the prescribed limit of pressure, and to ascertain the best form of banding for the projectiles. This firing is not completed, and the results thus far obtained can hardly be accepted as the best to be expected from this piece. In all, about 193 rounds have been fired, of which 78 rounds were with charges of from 50 to 80 pounds, with an average pressure of about 28,000 pounds, but reaching as high as 33,000 pounds per square inch. The maximum charge is not less than 80 pounds brown prismatic powder; density of loading, 1.113; weight of shell, 630 pounds; maximum velocity, 1,152 feet; energy, 5,796 foot-tons. The range attained with this charge and weight of shell under an angle of 45 degrees was 10,480 yards, or 5.95 miles.

It is the intention to subject the mortar to a fire of endurance of not less than 400 rounds, of which 200 shall be with the maximum charge or in which the pressure shall be a maximum. It is the intention to use a stronger powder for the maximum charge, to give a pressure of about 30,000 pounds, with a velocity of about 1,175 feet. The present mounting of the mortar, as regards both carriage and platform, is unsatisfactory, and the firings for accuracy at long range will have to be postponed until a new platform can be laid. No firings for rapidity have as yet been made, and at this date it may be said that the accuracy of fire, endurance, and power are not definitely determined except as to the minimum limit.

The manufacture of the two 12-inch breech-loading rifles, cast-iron tubed, and cast-iron hooped and tubed, after having been suspended for nearly two years, owing to the failure of the contractors to complete them within the life-time of the appropriation, was resumed this spring, Congress having re-appropriated the money to pay for them, and having also extended the contracts. The 12-inch breech-loading rifle, cast-iron hooped and tubed, has been completed and sent to the proving ground; the other gun, the 12-inch breech-loading rifle, cast-iron tubed, will probably be completed by next December.

The act making provisions for fortifications and other works of defense, for the armament thereof, and other purposes, was approved and became law on September 22, 1888.

In accordance with the provisions of this act a board of officers, designated as the "Board of Ordnance and Fortification," was appointed to meet on October 30, 1888, consisting of the Major-General commanding the Army, Maj. Gen. John M. Schofield; a colonel of engineers, Col. Henry L. Abbot; a colonel of artillery, Col. Henry W. Closson; and a lieutenant-colonel of ordnance, Lient. Col. Alfred Mordecai. On the assembling of this Board on October 30 the projects of the Engineer Department relative to expenditures under section 2 of the act were referred to it and returned favorably recommended by the Board. The plans, specifications, and forms of proposals for bidders prepared by

the Ordnance Department relative to steel forgings for 8-inch, 10-inch, and 12-inch guns required under the provisions of section 4, also for the 12-inch breech-loading rifled mortars of cast iron hooped with steel, required under the provisions of section 5, and a detailed estimate of proposed expenditures under section 3 of the act were likewise submitted to the Board on October 30.

The Board returned the papers pertaining to the steel forgings and the mortars on November 6, recommending favorable action, which was approved by this office and the papers transmitted to the Ordnance Bureau on November 9. On the same date the Bureau made application for authority to publish advertisements inviting proposals in the newspapers throughout the country, which request was granted on November 12, and on November 13 the advertisements were sent out to the different newspapers designated. The bids for the steel forgings will be opened on December 20, 1888, and for the mortars on December 15, 1888.

The Board also recommended favorable action on the detailed estimates submitted under section 3, with the exception of a few items on which the Department did not require immediate action. Under the provisions of this section samples may be procured from abroad, and as the heavier forgings for two type guns, one of 10 and one of 12 inches caliber, some samples of powder for heavy guns, several experimental types of gun-carriages, and certain ballistic instruments, among the items recommended by the Board, could not be procured in this country, I decided, on the recommendation of the Chief of Ordnance, to send two ordnance officers to Europe to personally negotiate the purchase of these materials and to inspect the manufacture. These officers are now en route to their destination.

In order to best meet the requirements of section 4, relative to the erection of an army gun factory at the Watervliet Arsenal, West Troy, N. Y., on the recommendation of the Chief of Ordnance, I directed a board of ordnance officers to convene at that arsenal on October 4, 1888, to prepare the necessary plans and specifications. The preliminary report of this board, with estimates for shop building and officers' quarters, was received on November 2, and referred to the Board of Ordnance and Fortification, and by them approved, November 6 and 8.

Advertisements were published under date of November 22 inviting proposals for making the necessary excavations for the gun-factory building, and for the erection of two sets of officers' quarters. The bids for this and other work, such as constructing a railroad line in the Arsenal grounds, for building an iron bridge over the canal, etc., will be opened on December 24, 1888. The detailed drawings and specifications for the gun-factory building are well in hand and will be completed within three or four months, when, after approval by the Board of Ordnance and Fortification, additional proposals will be invited for completing the work required under the provisions of section 4, relative

to the gun factory. It is expected that the machines, including the larger ones, which may be of special design, will be completed as early as the shops—say, within eighteen months from January 1, 1889.

The provisions of section 6 of the bill are being now made the subject of careful study by the Board of Ordnance and Fortification with a view to preparing the necessary requirements for steel guns of 10 and 12 inches caliber, for the information of parties who may wish to present a trial gun of 10 or 12 inches caliber, under the provisions of this section. The requirements for 12-inch cast iron breech-loading mortars, provided for under section 6, have already been formulated by the Board so far as the tests of the 12-inch mortar, steel hooped, now at Sandy Hook, will permit, and manufacturers advised accordingly.

Under the provisions of the Army bill for the procurement of pneumatic dynamite guns, the necessary specifications are now being prepared, and advertisements for proposals will issue early in December. The guns will probably be of 15 inches calibers and throw a projectile that will carry a charge, each, of about 500 pounds of explosive gelatine, with full caliber projectiles. The guns will probably be delivered in from six to ten months from the date of the contract, so that all the guns of this class that can be procured under the provisions of the law will be purchased during the coming year, 1889.

THE SIGNAL SERVICE.

The Chief Signal Officer dwells upon the reduction of clerical force, the diminution of expenses, the permanent recognition of civilian assistants, the better quarters provided, and upon the improved character of indication work and signals. By reorganization of the force the number of enlisted men has been reduced from 470 to 320, and it is believed that it may still be reduced by a hundred. In such an event \$100,000 would be saved in pay and allowances, as against \$80,000 required for civilian assistants. The only division which has been hampered by insufficient means is that of military signaling. In this strictly military work every effort has been made to keep pace with improvements effected in other countries. A standard heliograph has been devised, field-glasses for the Army have been improved, and a few experiments have been made with ordinary signaling devices. The liberality of pigeon fanciers has permitted the service to try the experiment of communication between Key West and the West Indies by homing pigeons, and the results attained are very satisfactory.

The Chief Signal Officer invites attention to the present imperfect methods of instruction in military signaling, and asserts that during the present year, as in the past, fully half the Army has received no instruction of any practical value. He strongly urges that the annual appropriation for military signaling be increased to \$7,500 in order that the work may be properly performed, that adequate supplies and material may be provided and kept in serviceable condition, and that rifle

ranges may be fitted with electric appliances. The latter are essential to guard against the accidents frequently happening for want of telegraphic communication between the butts and the firing ranges. This is also recommended by the Commanding General, and he adds thereto the necessity for such appliances for practice batteries for sea-coast artillery. For instruction at Fort Leavenworth, Fort Monroe, and Fort Riley the detail of an officer and four or six men of the Signal Corps is strongly recommended.

The accuracy of weather predictions has increased 2.7 per cent., and that of storm signals 8.9 per cent., as compared with the previous year. The requirement of the joint resolution of February 9, 1870, that the force of storms be predicted has been carried out this year for the first time. The new system of signals indicate whether the storm is light or severe, whether its center is approaching or has passed the station, and from what quarter winds are expected. Its use has proved satisfactory and advantageous to the maritime interests. The Chief Signal Officer acknowledges the hearty co-operation of leading journals throughout the country in adding to the general predictions those of a local character.

The demand for weather signals is increasing, and 1,100 cities and towns, not readily reached by the press, are furnished by the Service with them daily, and they are displayed at private expense. Weather crop bulletins have been regularly issued every Sunday morning, while warnings of cold waves and approaching frosts have been continued to the general satisfaction and frequent advantage of the public.

The Weather Review and Summary of International Meteorology have been published monthly. A large number of additional reports of great value from land stations and vessels at sea have been collected, but their publication, as agreed upon at the Vienna Meteorological Conference, has been prevented by lack of appropriations. Monthly maps of the mean pressure, mean temperature, prevailing winds, and average storm track for each month of the year for transatlantic voyages are under preparation. In connection with these charts, the limits of ice dangerous to navigation in the North Atlantic have been outlined, determining the approximate track of safety during the season of icebergs. The approach of the dense fogs off Newfoundland are also predicted with considerable accuracy several days in advance, thus enabling steamers to avoid them. On the 1st of January, 1888, the Chief Signal Officer transferred to the Hydrographic Office, U. S. Navy, the collection of marine observations, and the two departments are working in perfect accord.

Weather information has been furnished daily to the meteorological offices in Paris and London, and, in view of its importance to vessels, the Chief Signal Officer urges that Congress be asked to authorize a small expenditure for this service, which has been carried on thus far

at the expense of the French Government. State weather services are now organized in twenty-nine States, and the co-operation of the Chief Signal Officer has been limited only by the requirements of law and the amounts of his appropriations.

The system of river and flood observations has been thoroughly re-organized, and now covers the absolutely essential points throughout the year. Another thousand dollars would insure greater efficiency, by extending observations over the whole year at important stations, which are now limited to the flood season. One hundred and sixteen stations were in operation in the cotton region; more are demanded, but can not be established for want of funds.

Although the Government land and sea-coast telegraph lines have been sold or abandoned wherever rendered unnecessary by the advance of railroads and the extension of private lines, there were still in use on June 30, 1888, 1,905 miles of military telegraph land lines and 561 miles of sea-coast lines. Full statistics regarding them are given, and the Chief Signal Officer points out that of the appropriations for the Signal Corps over \$100,000 are chargeable to these lines, while they are of but slight and incidental value to the weather system.

The Chief Signal Officer calls especial attention to the loss of time occasioned by daily reports of clerical work done. Such reports are generally useless, and entail an annual loss of time estimated in money at \$4,000. He also asks, with a view to their final destruction, that a commission be appointed to examine and report upon the enormous accumulation of obsolete forms and valueless papers which now encumber his office. He alludes with satisfaction to the improvement manifest in the standing of the observers; he has endeavored to create among them a feeling of emulation and pride in the service, and to encourage such of his subordinates as are engaged in scientific work. Appropriations are now sufficient to maintain the stations in decent order.

The general bibliography of meteorology has been completed to 1882, and a supplement is in preparation to date. Its value to practical as well as to scientific men is great, and the Chief Signal Officer urgently recommends its publication at a cost not exceeding \$10,000. The work throughout the Bureau is in a more satisfactory condition than ever before, and is performed with a smaller force. The estimates for the year ending June 30, 1890, are \$1,991.64 less than for the preceding year, and are now brought as low as possible under the existing organization. The Chief Signal Officer again recommends the interchangeability of appropriations for this Bureau, as being in the interests of efficiency as well as of economy. He urges strongly the military re-organization of the Signal Service, thereby increasing its efficiency with a reduction in the force. He also recommends that every man in the corps not receiving allowances in kind shall be paid a fixed sum, to range from \$55 to \$65 monthly according to locality, in lieu of the present complicated system of commutation.

modation is insuflcient, and the number of applications for entrance reasing. There have been more admissions during the past year in any previous year, and on September 30, 1888, there were 1,084 icariies (1,033 permanent and 51 temporary); of the total number 32 were inmates, and 302 outside commuters. The extension now ing will probably be ready before winter, and will afford sufficient for the present demand, but will leave little space for a further use in the number of inmates.

ailed statements of the finances of the institution accompany the ; of the commissioners. The permanent fund in the treasury on mber 30, 1888, amounted to \$1,793,898.86; the annual expendi- or some years past has averaged about \$175,000, and the esti- l income from all sources, as the accounts now stand, is \$163,816.91.) buildings and grounds are in good order, the administration is ul and efficient, and the food is ample and good. Three chaplains— lic, Protestant, and German Lutheran—hold religious services Sunday.

) farm, dairy, and garden furnish vegetables, milk, and food; the and dairy pay a profit, and the three are useful and healthful idages to the Home.

) inspector-general recommends that some of the work now done id inmates be done by daily details of inmates who are competent as better for their health and for economy's sake. He is of opin- at too much is done for the beneficiaries of the Home who receive pensions, and for retired soldiers, and suggests that the conditions which they are received be revised.

s last suggestion is well worthy of consideration. Some stated onstant occupation for a certain period every day would be a great

Secretary of War. The design of this monument, with the inscriptions and emblems to be placed thereon, was, under the act, to be approved by the joint select committee of Congress. The design and plans presented by Maurice J. Power, of New York, were selected by the joint committee, and he was authorized to erect the monument.

The design consisted of a tower 37 by 31 feet and 46 feet high. The space within was open to the roof, with a winding stairway on one side to a gallery or floor under the roof, from which a wide view of the Hudson and surrounding country was obtained. The hall within contained a statue of Washington, exposed to the light and air entering through open archways on each side. On the outer walls were four statues of life-size in niches.

Contracts were made by the Secretary of War with Mr. Power for the erection of this structure, but the funds available were not sufficient to include the statues, and in this respect the monument was not completed. By an act of Congress approved October 2, 1888, the sum of \$32,000 was appropriated for the completion of the monument and of the statues thereon according to the plans adopted by the Joint Select Committee of the Senate and House; and also for gates at the several archways, as recommended by the Secretary of War, for the protection of the interior of the tower.

Mr. Power has prepared models of the statues contemplated by his original plans for the outer wall, and drawings for the bronze gates, added by the act of October 2, 1888, and negotiations are now in progress in regard to the detail and estimates for the work.

The previous reports on this subject will be found in the reports of the Secretary of War for 1885 and 1886.

MONUMENT TO LAFAYETTE.

The formal contract for the erection of this monument was signed with the artists, Mr. A. Mercié and Mr. A. Falguière, of Paris, on December 27, 1887. The price stipulated for it is \$45,000, and the time allowed is two years from the date of the contract.

The commission in charge of this work has decided that the compatriots of Lafayette shall be represented on the monument by statues of Vice-Admiral Count d'Estaing and Lieutenant-General Count de Grasse, on behalf of the French navy; of Lieutenant-General Count de Rochambeau and General-Chevalier Duportail, on behalf of the French army.

The site for the monument has not yet been selected.

MONUMENTS AT GETTYSBURGH.

The act of Congress of March 3, 1887, authorized the expenditure, under the direction of the Secretary of War, of \$15,000 for the erection of monuments on the field of the battle of Gettysburgh for the purpose of marking the positions of the Federal troops.

The Attorney-General gave an opinion in December, 1887, that the land of the field of battle could not, by the terms of section 3736 of the Revised Statutes of the United States, be purchased under this appropriation, and consequently nothing has been done beyond preparing a map of the ground, and plotting thereon the positions occupied by the troops. Authority for the purchase of land was given in the sundry civil bill for the fiscal year ending June 30, 1889, but it is believed that, by the terms of sections 355 and 4661 of the Revised Statutes, it will be necessary for the General Government to secure a cession of jurisdiction over the land from the State of Pennsylvania before monuments can be erected as proposed.

RECORDS OF THE WAR OF THE REBELLION.

Of Series I, volume XIX, two parts, XX, two parts, and XXI, one part, have been issued and distributed; and volume XXII, Part I, is now going through the press. The indexes of volume XXII, Part II, and volume XXIII, Part II, are now in the hands of the printer. The stereotyping of volume XXVII (three books), and Part I, volume XXVIII, is completed, the second part of this volume being now in process of stereotyping. The manuscript of volume XXXVI (three books) and volume XXXVII (two books) has been arranged for the printer, while that of volume XXX (two books) is nearly ready. Twenty-one volumes, or thirty-one books, have already been published, while the work is stereotyped to include Part I of volume XXVIII, or forty-six books; that is fifteen books in advance of the publication. It is therefore quite possible, if Congress increases the appropriation sufficiently, to issue the publication more rapidly. Eight books per annum could be issued and yet maintain the stereotyping well in advance, but the appropriation as made for the past six years only admits of the publication of four books annually.

STATE, WAR, AND NAVY DEPARTMENT BUILDING.

The act of March 3, 1887, required the offices of the several Bureaus of the Department occupying rented buildings to be removed into the west and center wings of the State, War, and Navy Department Building by March 1, 1888. The movement was begun on January 18, and completed within the time required.

ASSISTANT SECRETARY OF WAR.

In concluding this report I desire to call the attention of Congress to the great need of an Assistant Secretary of War. Such an officer is imperatively needed for the proper and efficient administration of this Department. I therefore renew the recommendation made in previous reports, and in the reports of my predecessor, for the appointment of an Assistant Secretary of War.

WILLIAM C. ENDICOTT,
Secretary of War.

APPENDIX.

APPENDIX A

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1888.

Title of appropriation.	Balances July 1, 1887.	Appropriated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
SALARIES CONTINGENCIES, ETC.							
Salaries, office of Secretary of War.....	\$2,001.39	\$113,450.00	.....	\$115,451.39	\$109,950.00	\$861.72	\$4,638.77
Salaries, office of Adjutant-General.....	26,141.89	703,700.00	.....	732,841.89	681,604.47	15,781.54	35,455.83
Salaries, office of Inspector-General.....	133.34	3,720.00	.....	3,853.34	3,720.00	23.27	1,555.00
Salaries, office of Military Justice.....	83.27	13,200.00	.....	13,283.27	11,705.00	1,045.48	2,255.06
Salaries, Signal Office.....	1,606.93	40,600.00	.....	42,206.93	39,004.04	12,755.48	11,395.41
Salaries, office of Quartermaster-General.....	16,322.97	175,457.52	.....	191,810.49	167,659.60	3,847.93	3,847.93
Compensation expenses of agents, Quartermaster's Department.....	3,885.16	6,134.00	.....	10,019.16	2,296.07	201.85	3,790.34
Salaries, office of Commissary-General.....	521.19	43,730.00	.....	44,251.19	43,590.00	21,984.89	35,754.30
Salaries, office of Surgeon-General.....	38,722.75	513,345.00	.....	552,067.75	494,838.68	2,966.82	1,377.31
Salaries, office of Paymaster-General.....	358.58	57,710.00	.....	61,368.58	57,044.20	22.82	451.63
Salaries, office of Chief of Ordnance.....	278.89	44,840.00	.....	45,218.89	44,630.00	278.89	1,745.64
Salaries, office of Publication of Records of Rebellion.....	1,686.98	21,240.00	.....	23,518.89	22,785.37	915.90	1,860.34
Salaries, superintendent, etc., building Seventeenth and F streets.....	228.09	27,380.00	.....	28,068.09	26,405.36	68.75	1,200.00
Postage, office of Publication of Records of Rebellion.....	.....	8,030.00	.....	8,049.00	8,020.00	.....	1,200.00
Contingent expenses, War Department.....	442.83	60,641.00	.....	61,500.00	64,889.75	415.36	1,678.91
Stationery, War Department.....	2,594.18	23,000.00	.....	27,084.02	21,819.27	4,618.19	1,066.72
Rent of buildings, War Department.....	870.00	30,862.00	.....	31,732.00	26,662.56	870.00	4,199.42
Salaries of employes of public buildings and grounds under Chief of Engineers.....	27	91,127.90	.....	91,128.17	91,127.90	27	.....
Contingent expenses of public buildings and grounds.....	15.73	1,000.00	.....	1,015.73	1,000.00	15.73	.....
Rent of office, public buildings and grounds.....	.....	1,800.00	.....	1,800.00	1,500.00	.....	300.00
Furniture, State, War, and Navy Department Building.....	.....	60,000.00	.....	60,000.00	50,000.00	.....	10,000.00
Total, salaries, contingent expenses, and postage.....	102,523.85	2,053,647.51	.....	2,156,171.36	1,972,053.97	68,006.97	118,110.43
MILITARY ESTABLISHMENT.							
Expenses of Commanding General's office.....	.....	1,200.00	.....	1,200.00	1,200.00	.....	.....
Expenses of recruiting.....	70,300.80	100,007.75	.....	170,308.55	101,167.50	41,892.38	27,248.67
Contingencies of the Adjutant-General's Department.....	90.29	2,000.00	.....	2,090.29	1,961.57	90.29	38.43
Contingencies of the Army.....	14,016.20	16,258.73	.....	30,274.93	11,632.22	12,780.65	4,862.06
Signal Service of the Army.....	70.80	8,000.00	.....	8,070.80	7,715.82	816.60	38.38
Pay, etc., of the Army.....	308,373.56	12,729,897.61	.....	13,038,271.10	12,164,113.09	142,738.19	731,419.62
Subsistence of the Army.....	870,956.09	1,749,408.88	.....	2,120,367.97	1,823,940.68	358,207.90	238,219.49
Regular supplies, Quartermaster's Department.....	57,208.74	2,084,607.74	.....	3,742,116.48	2,587,607.71	50,558.81	103,949.96

REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balance July 1, 1887.	Appropri- ated July 1, 1887 to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balance June 30, 1888.
PUBLIC WORKS—continued.							
Military posts.							
Fort Brown, Tex.	\$25,000.00			\$25,000.00			\$25,000.00
Purchase of Fort Brown reservation, Texas.	160,000.00			160,000.00			160,000.00
Purchase of drill ground near San Antonio, Tex.	160,345.00			160,345.00			845.00
Buildings for cavalry and artillery school, Fort Riley, Kans.	197,500.00			197,500.00	\$197,500.00		
Wharf at Fortress Monroe, Va.	80,000.00			80,000.00	8,000.00		91,000.00
Payment to Salt Lake Rock Company for lands and water rights in Utah.	20,000.00			20,000.00	20,000.00		
Military posts for the protection of the Rio Grand frontier.	30,000.00			30,000.00	30,000.00		.67
Military post at Fort D. A. Russell, Wyo.	55,000.00			55,000.00	55,000.00		.25
Military post near the northern boundary of Montana.	100,000.00			100,000.00	3,000.00		206.00
Military post at Fort Robinson, Nebr.	100,000.00			100,000.00			97,000.00
Military post at Fort McKinney, Wyo.	120,000.00			120,000.00			120,000.00
Military post near Denver, Colo.	48,578.87			48,578.87			84,725.51
Fort Brady military post, Michigan.	200,000.00			200,000.00	213,853.38		16,531.55
Extension of military reservation at Fort Robinson, Nebr.	60,000.00			60,000.00	43,468.45		98,922.83
Military posts.	100,000.00			100,000.00	1,070.17		
Military post near Newport, Ky.; site.	92,823.00			92,823.00	92,823.00		
Military post near Newport, Ky.; buildings.		20,000.00		20,000.00	20,000.00		
Remodeling Old Produce Exchange Building, New York City.		1,973.98		1,973.98			1,973.98
Improvement of Yellowstone National Park.							.16
Improvement of National Park, island of Mackinaw, Michigan.							.70
Army depot building, Saint Paul, Minn.							
Military quarters, Fort Apache, Ariz.							
Total military posts.	1,108,453.79	224,473.98	.80	1,332,928.63	687,214.98		645,713.65
Deduct repayments in excess of payments.					.80		
Actual expenditures.					687,214.12		
Harbors and rivers.							
Improving harbor at—							
Belfast, Me.	2,808.80			2,808.80	50.00		2,758.80
Bağcı and Penobscot River, Maine.	49.33			49.33	49.33		
Rockland, Me.	17,671.99			17,671.99	16,697.50		1,064.49
Portland, Me.	24,000.00			24,000.00	24,000.00		
Breakwater at mouth of Saco River, Maine.	7,823.36			7,823.36	7,823.06		.30
Improving channel in Back Cove, Portland, Me.	24,900.00			24,900.00	12,107.50		12,792.50
Improving harbor at—							
York, Me.	13,050.00			13,050.00	12,064.50		985.50
Portsmouth, N. H.	12,800.00			12,800.00	11,914.50		885.50
Harbor of refuge at Little Harbor, New Hampshire.	4,660.00			4,660.00	9,662.00		67.00

REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balances July 1, 1887.	Appropriated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
PUBLIC WORKS—Continued.							
Harbors and Rivers—Continued.							
Improving harbor at—							
Pulneyville, N. Y.	\$2.90			\$2.90	\$2,500.36		\$2.90
Rondout, N. Y.	2,560.36			2,560.36	17,098.90		6,051.10
Breakwater at Ronco's Point, Lake Champlain, New York	23,150.00			23,150.00	283.73		5,000.00
Improving Sheepshead Bay, New York	5,283.73			5,283.73			
Improving harbor at—							
Sackett's Harbor, N. Y.	72.11			72.11	72.11		
Saugerties, N. Y.	19,000.00			19,000.00			
Wilson, N. Y.	7,232.20			7,232.20	6,838.70		393.50
Improving New York Harbor, New York	742,212.10			742,212.10	152,212.10		590,000.00
Ice-harbor at Marcus Hook, Pa.	75,416.72			75,416.72	3,374.10		72,042.62
Improving harbor at Keyport, N. J.	55.00			55.00			
Improving harbor at Keyport, N. J.	451.00			451.00	451.00		
Improving harbor at Atlantic City, N. J.	37,500.00			37,500.00	37,500.00		
Survey of harbor at Atlantic City, N. J.	2,500.00			2,500.00	1,008.60		1,491.40
Improving harbor at Delaware Breakwater, Delaware	500.00			500.00	500.00		
Ice-harbor at Reedy Island, Delaware	17,000.00			17,000.00	1,073.10		15,926.90
Improving harbor at—							
Wilmington, Del.	3,100.00			3,100.00	3,100.00		
Annapolis, Md.	1,524.58			1,524.58			1,524.58
Baltimore, Md.	408.50			408.50	408.50		
Bretton Bay, Leonardtown, Md.	100.00			100.00			100.00
Entrance of St. Jerome's Creek, Maryland	1,770.00			1,770.00	738.00		1,031.40
Norfolk, Va.	110,000.00			110,000.00	948.00		109,052.00
Beaufort, N. C.	1,000.00			1,000.00	1,000.00		
Improving Edenton Bay, North Carolina	2,447.41			2,447.41			2,447.41
Improving waterway between New Bern and Beaufort, N. C.	7,800.00			7,800.00	2,600.00		5,200.00
Improving harbor at Charleston, S. C.	81,500.00			81,500.00	64,188.35		17,311.65
Improving Winyaw Bay, South Carolina	15,250.00			15,250.00	1,250.00		14,000.00
Improving harbor at—							
Brunswick, Ga.			\$36.60	36.60			36.60
Savannah, Ga.	2,850.00			2,850.00	2,600.08		249.92
Improving Apalachicola Bay, Florida	4,000.00			4,000.00	4,000.00		
Improving harbor at—							
Cedar Keys, Fla.	3,800.00			3,800.00	3,800.00		
Pensacola, Fla.	7,000.00			7,000.00	7,000.00		
Improving Tampa Bay, Florida	6,000.00			6,000.00	6,000.00		
Improving harbor at—							
Mobile, Ala.	64.50			64.50	64.50		
Brazos Santiago, Tex.	35,500.00			35,500.00	5,650.50		29,849.50
Galveston, Tex.	250,000.00			250,000.00	250,000.00		

Improving harbor at— Burlington, Vt.	20,800.00				20,800.00			8,580.20		12,009.76
Swanton, Vt.	228.83				228.83					228.83
Breakwater at Gordon's Landing, Lake Champlain, Vermont	18,200.00				18,200.00			9,077.40		9,122.60
Improving harbor at— Boston, Mass.	40,792.12				40,792.12			34,935.51		5,856.61
Lyons, Mass.	34.40				34.40					34.40
Nantucket, Mass.	10,060.20				10,060.20			5,060.20		5,000.00
Newburyport, Mass.	21,600.00				21,600.00					
Provincetown, Mass.	1,600.00				1,600.00			1,600.00		
Gloucester, Mass.	3,000.00				3,000.00			3,000.00		
Plymouth, Mass.	2,000.00				2,000.00			2,000.00		
Scituate, Mass.	12.90				12.90					
Wareham, Mass.	10,055.90				10,055.90			3,055.90		7,000.00
Harbor of refuge at— Wood's Holl, Mass.	25.60				25.60			25.60		
Sandy Bay, Cape Ann, Massachusetts	74,000.00				74,000.00			70,430.00		3,570.00
Improving harbor at— Hyannis, Mass.	7,043.00				7,043.00			2,043.00		5,000.00
Block Island, R. I.	20,000.00				20,000.00			12,086.00		7,914.00
Improving Little Narragansett Bay, Rhode Island	143.04				143.04					143.04
Improving harbor at— Newport, R. I.	25.80				25.80			25.80		
Bridgeport, Conn.	1,038.70				1,038.70			38.70		
Clinton, Conn.	252.73				252.73					252.73
Black Rock, Conn.	2,000.00				2,000.00			2,000.00		
Milford, Conn.	241.02				241.02					241.02
New Haven, Conn.	7,000.00				7,000.00			7,000.00		
Breakwater at New Haven, Conn.	45,279.50				45,279.50			30,279.50		9,000.00
Improving harbor at— Norwalk, Conn.	500.00				500.00			46.00		453.10
Stonington, Conn.	4,551.60				4,551.60			4,151.60		400.00
Southport, Conn.	79.60				79.60					79.60
Stamford, Conn.	5,043.00				5,043.00			5,043.00		
Buffalo, N. Y.	78,992.12				78,992.12			77,483.80		800.23
Charlotte, N. Y.	20,557.68				20,557.68			10,190.30		4,567.38
Improving Camargo Bay, New York	8,000.00				8,000.00			68.80		8,000.10
Improving harbor at Dunkirk, N. Y.	1,602.21				1,602.21			12.90		1,533.41
Improving Echo Harbor, New Rochelle, N. Y.	3,036.87				3,036.87					3,043.97
Improving Fishing Bay, New York	3,043.00				3,043.00			2,293.00		750.00
Improving harbor at— Greenport, N. Y.	1,021.50				1,021.50			1,021.50		
Great Sodus Bay, New York	14,312.09				14,312.09			10,964.50		3,347.59
Little Sodus Bay, New York	14,253.28				14,253.28			9,447.20		4,806.08
Manaroneck, N. Y.	220.55				220.55					220.55
New Rochelle, N. Y.	10,073.10				10,073.10			7,073.10		9,000.00
Ogdensburgh, N. Y.	3,773.90				3,773.90			3,773.90		
Oswego, N. Y.	67,809.16				67,809.16			36,308.90		26,600.26
Oak Orchard, N. Y.	594.81				594.81			47.30		547.51
Flattsburgh, N. Y.	4,838.06				4,838.06			4,838.06		
Port Jervis, N. Y.	1,700.00				1,700.00			38.70		1,661.30
Port Jefferson, N. Y.	374.76				374.76			50.00		324.76

REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balances July 1, 1887.	Appropriated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
PUBLIC WORKS—continued.							
Harbors and rivers—Continued.							
Improving harbor at—							
Pensacola, Fla.	\$1,446.92			\$1,446.92	\$257.00		\$4,079.92
Port Washington, Wis.	1,300.00			1,300.00	248.60		951.40
Racine, Wis.	1,000.00			1,000.00	521.50		478.50
Sheboygan, Wis.	7,032.22			7,032.22	6,860.20		172.02
Improving harbor of refuge at entrance of Sturgeon Bay Canal, Wisconsin.	3,000.00		\$62.50	3,062.50			3,625.50
Dredging Superior Bay, Wisconsin.	4.30			4.30			
Harbors of refuge on Lake Pepin, Wisconsin and Minnesota.	5,000.00			5,000.00	1,028.70		3,971.30
Improving harbor at Superior Bay and St. Louis Bay, Wisconsin.	13,445.70			13,445.70	4,460.00		9,045.70
Examination of Sturgeon Bay and Lake Michigan Ship-Canals.	3,164.77			3,164.77	12.90		3,001.87
Ice-harbor at Dubuque, Iowa.	4,000.00			4,000.00			4,000.00
Improving harbor at—							
Agate Bay, Minnesota.	13,500.00			13,500.00	12,014.60		1,485.40
Duluth, Minn.	25,147.50			25,147.50	21,877.00		3,260.50
Grand Marais, Minn.	2,237.50			2,237.50	300.00		1,937.50
Lake City, Minn.	10,000.00			10,000.00	10,000.00		
Breakwater and harbor of refuge between Straits of Fuca and San Francisco, Cal.	141,373.08			141,373.08			141,373.08
Improving Humboldt Harbor and Bay, California.	136,803.64			136,803.64	584.80		136,278.84
Survey of San Francisco Harbor, San Pablo and Suisun Bays, Strait of Carquinez, and months of San Joaquin and Sacramento Rivers, California.	10,000.00			10,000.00	8,643.00		1,457.00
Improving harbor at—							
San Francisco, Cal.	3,828.57			3,828.57			3,828.57
Redwood, Cal.	2,500.00			2,500.00	2,500.00		
Wilmington, Cal.	63,000.00			63,000.00	30,213.60		32,686.40
Oakland, Cal.	5,000.00			5,000.00	2,172.00		2,828.00
Improving entrance to Coos Bay and Harbor, Oregon.	31,000.00			31,000.00	2,253.70		28,746.30
Improving—							
Yaquina Bay, Oregon.	47,000.00			47,000.00	47,000.00		
Kennebunk River, Maine.	336.34			336.34			
Lebec Channel, Maine.	9,550.00			9,550.00	9,550.00		
Moosehead Bar at Jonsport, Me.	9,403.66			9,403.66	3,043.00		6,360.66
Narraguagus River, Maine.	9,700.00			9,700.00	9,700.00		
Saco River, Maine.	11,950.00			11,950.00	11,950.00		
Penobscot River, Maine.	14,000.00			14,000.00	5,064.50		8,935.50
Cocheco River, New Hampshire.	6,158.75			6,158.75	5,943.50		215.25
Lamprey River, New Hampshire.	19.42			19.42			19.42
Otter Creek, Vermont.	648.34			648.34			648.34
Ipswich River, Massachusetts.	8.60			8.60			
Taunton River, Massachusetts.	2,904.40			2,904.40	2,904.40		

REPORT OF THE SECRETARY OF WAR.

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Ashland, Ohio.....	17,000.00	17,000.00	17,000.00
Black River, Ohio.....	3,000.00	3,000.00	3,000.00
Cleveland, Ohio.....	143,937.00	143,937.00	10,260.0
Fallport, Ohio.....	8,000.40	8,000.00	8,000.00
Ice-harbor mouth of Muskingum River, Ohio.....	26,000.00	26,000.00	26,000.00
Improving harbor at—			
Sandusky City, Ohio.....	11,000.00	11,000.00	9,055.80
Toledo, Ohio.....	105,600.00	105,600.00	70,477.30
Michigan City, Ind.....	32,975.00	32,975.00	12,193.50
Chicago, Ill.....	20,077.76	20,077.76	18,172.00
Waukegan, Ill.....	5,500.00	5,500.00	5,500.00
Au Sable, Mich.....	4,861.53	4,861.53	4,761.53
Black Lake, Mich.....	3,500.00	3,500.00	1,474.20
Improving ice-harbor of refuge at Belle River, Mich.....	47.10	47.10	47.10
Improving month and harbor of Cedar River, Mich.....	2,070.02	2,070.02	335.00
Improving harbor at—			
Charlevoix, Mich.....	10,000.00	10,000.00	10,000.00
Cheboygan, Mich.....	16,430.66	16,430.66	10,077.40
Improving harbor at—			
Frankfort, Mich.....	2,886.33	2,886.33	400.00
Grand Haven, Mich.....	3,000.00	3,000.00	3,000.00
Harbor of refuge at Grand Marais, Mich.....	27,100.00	27,100.00	17,163.40
Improving harbor at—			
Ludington, Mich.....	24,000.00	24,000.00	15,232.20
Manistee, Mich.....	22,783.62	22,783.62	10,620.40
Marquette, Mich.....	56,750.00	56,750.00	3,245.10
Muskegon, Mich.....	12,600.00	12,600.00	6,055.00
Ontonagon, Mich.....	3,501.70	3,501.70	6,441.10
Pontiac, Mich.....	10,000.00	10,000.00	8,101.79
Port Huron, Mich.....	8,000.00	8,000.00	8,857.00
St Ignace, Mich.....	9,725.30	9,725.30	8,835.50
St Ignace, Mich.....	5,000.00	5,000.00	7,064.60
St Ignace, Mich.....	5,000.00	5,000.00	8,314.60
St Ignace, Mich.....	5,000.00	5,000.00	1,410.80
St Ignace, Mich.....	5,000.00	5,000.00	4,948.40
Harbor of refuge at Portage Lake, Michigan.....			
Improving harbor at—			
Saint Joseph, Mich.....	3,000.00	3,000.00	3,000.00
Saugatuck, Mich.....	5,000.00	5,000.00	5,000.00
South Haven, Michigan.....	3,000.00	3,000.00	9,000.00
Thunder Bay, Michigan.....	4,325.07	4,325.07	100.00
White River, Michigan.....	4,000.00	4,000.00	4,000.00
Steam launch or tug at harbor of refuge, Lake Huron, Michigan.....	4,116.06	4,116.06	17.20
Improving harbor at—			
Ahuapee, Wis.....	15,401.39	15,401.39	164.50
Ashland, Wis.....	21,000.00	21,000.00	94.00
Green Bay, Wis.....	5,000.00	5,000.00	5,000.00
Kenosha, Wis.....	2,762.20	2,762.20	2,025.80
Keweenaw, Wis.....	4,900.00	4,900.00	4,724.40
Manitowoc, Wis.....	5,101.83	5,101.83	165.60
Menomonee, Wis.....	3,000.00	3,000.00	3,837.43
Milwaukee, Wis.....	3,500.00	3,500.00	662.90
Harbor of refuge, Milwaukee Bay, Wisconsin.....	28,500.00	28,500.00	3,500.00
Improving harbor at—			
Oconto, Wis.....	852.51	852.51	2,272.10
			181.01

REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1883, etc.—Continued.

Title of appropriation.	Balance July 1, 1887.	Appropriated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balance June 30, 1888.
PUBLIC WORKS—continued.							
Harbors and rivers—Continued.							
Improving harbor at—							
Pensaukee, Wis.....	\$1,440.92			\$1,440.92	\$387.00		\$4,036.92
Port Washington, Wis.....	1,800.00			1,800.00	348.60		951.40
Racine, Wis.....	1,000.00			1,000.00	521.50		478.50
Sheboygan, Wis.....	7,032.23			7,032.23	9,860.20		192.02
Improving harbor of refuge at entrance of Sturgeon Bay Canal, Wisconsin.....	3,000.00		\$0.38 50	3,000.00	4.30		3,023.60
Dredging Superior Bay, Wisconsin.....	4.30			4.30			
Harbors of refuge on Lake Pepin, Wisconsin and Minnesota.....	5,000.00			5,000.00	1,038.70		3,961.30
Improving harbor at Superior Bay and St. Louis Bay, Wisconsin.....	13,445.70			13,445.70	4,400.00		9,045.70
Examination of Sturgeon Bay and Lake Michigan Ship-Canals.....	3,104.77			3,104.77	12.90		3,091.87
Ice-harbor at Dubuque, Iowa.....	4,000.00			4,000.00			4,000.00
Improving harbor at—							
Agate Bay, Minnesota.....	13,500.00			13,500.00	12,014.60		1,485.40
Duluth, Minn.....	25,147.50			25,147.50	21,877.90		3,269.60
Grand Marais, Minn.....	2,237.50			2,237.50	1,300.00		1,937.50
Lake City, Minn.....	10,000.00			10,000.00	10,000.00		
Breakwater and harbor of refuge between Straits of Fuca and San Francisco, Cal.....	111,373.08			111,373.08			111,373.08
Improving Humboldt Harbor and Bay, California.....	130,863.64			130,863.64	584.80		130,278.84
Survey of San Francisco Harbor, San Pablo and Suisun Bays, Strait of Carquinez, and mouth of San Joaquin and Sacramento Rivers, California.....	10,000.00			10,000.00	8,543.00		1,457.00
Improving harbor at—							
San Francisco, Cal.....	3,823.57			3,823.57			3,823.57
Redwood, Cal.....	2,500.00			2,500.00	2,500.00		
Wilmington, Cal.....	63,000.00			63,000.00	30,313.90		32,686.10
Oakland, Cal.....	5,000.00			5,000.00	2,172.00		2,828.00
Improving entrance to Coos Bay and Harbor, Oregon.....	31,000.00			31,000.00	2,283.70		28,716.30
Improving—							
Yaquina Bay, Oregon.....	47,000.00			47,000.00	47,000.00		
Kennebec River, Maine.....	336.34			336.34			
Lubec Channel, Maine.....	9,550.00			9,550.00	9,550.00		
Moosabec Bar at Jonesport, Me.....	9,403.66			9,403.66	3,043.00		6,360.66
Narragansett River, Maine.....	9,700.00			9,700.00	9,700.00		
Saco River, Maine.....	11,950.00			11,950.00	11,950.00		
Penobscot River, Maine.....	14,000.00			14,000.00	5,064.50		9,935.50
Cochecho River, New Hampshire.....	6,158.75			6,158.75	5,943.00		215.75
Lamprey River, New Hampshire.....	19.42			19.42			19.42
Otter Creek, Vermont.....	648.34			648.34			648.34
Ipswich River, Massachusetts.....	8.60			8.60			
Taunton River, Massachusetts.....	2,934.40			2,934.40	2,934.40		

Removing Green Jacket Shoal, Providence River, Rhode Island	25,507.50	.....	25,507.50	24,787.50	.....	750.00
Improving—						
Providence River and Narragansett Bay, Rhode Island.....	19,637.60	.....	19,637.60	18,937.60	.....	700.00
Pawtucket River, Rhode Island.....	23,129.00	.....	23,129.00	23,129.00	.....	.....
Pawcatuck River, Rhode Island.....	7,051.00	.....	7,051.00	5,051.00	.....	2,000.00
Warren River, Rhode Island.....	4,921.50	.....	4,921.50	4,921.50	.....	.....
Connecticut River, Connecticut.....	21,500.00	.....	21,500.00	9,133.30	.....	13,366.70
Connecticut River between Hartford and Holyoke.....	9,000.00	.....	9,000.00	.....	.....	8,961.30
Housatonic River, Connecticut.....	2,000.00	.....	2,000.00	530.10	.....	1,469.90
Thames River, Connecticut.....	20,098.90	.....	20,098.90	13,098.90	.....	7,000.00
Battemilk Channel, New York.....	28,197.80	.....	28,197.80	28,197.80	.....	.....
East Chester Creek, New York.....	9,600.00	.....	9,600.00	3,543.00	.....	6,057.00
Removing obstructions in East River and Hell Gate, New York.....	68,335.00	.....	68,335.00	53,385.00	.....	15,000.00
Improving—						
Grass River at Massena, N. Y.....	2,948.60	.....	2,948.60	.....	.....	2,948.60
Hudson River, New York.....	397,000.00	.....	397,000.00	47,000.00	.....	350,000.00
Hudson River, New York.....	37,250.00	.....	37,250.00	20,156.10	.....	17,093.90
Verdow Creek, New York.....	32,151.05	.....	32,151.05	32,080.00	.....	70.05
Niagara River, New York.....	587.52	.....	587.52	10.00	.....	587.52
Tionawamus Inlet, New York.....	81.88	.....	81.88	8.00	.....	71.88
Stumpwaggon River, New York.....	8.00	.....	8.00	.....	.....	.....
Narrows at Lake Champlain, New York and Vermont.....	16,000.00	.....	16,000.00	12,080.00	.....	3,914.00
Channel between Staten Island and New Jersey, New York and New Jersey.....	4,060.20	.....	4,060.20	4,060.20	.....	.....
Jersey.....	280.84	.....	280.84	280.84	.....	.....
Elizabeth River, New Jersey.....	1,000.00	.....	1,000.00	.....	.....	1,000.00
Manasquan River, New Jersey.....	3,000.00	.....	3,000.00	.....	.....	3,000.00
Mantua Creek, New Jersey.....	4,721.50	.....	4,721.50	4,721.50	.....	.....
Maurice River, New Jersey.....	20,487.96	.....	20,487.96	15,500.00	.....	4,987.96
Passaic River, New Jersey.....	79.60	.....	79.60	79.60	.....	.....
Rahway River, New Jersey.....	23,750.00	.....	23,750.00	10,103.20	.....	13,646.80
Raritan River, New Jersey.....	100.09	.....	100.09	.....	.....	100.09
Rancocas River, New Jersey.....	2,242.77	.....	2,242.77	.....	.....	2,242.77
Salem River, New Jersey.....	1,490.66	.....	1,490.66	.....	.....	1,490.66
Shrewsbury River, New Jersey.....	7,221.70	.....	7,221.70	4,038.70	.....	3,183.00
South River, New Jersey.....	4,861.27	.....	4,861.27	4,861.27	.....	.....
Woodbury Creek, New Jersey.....	4,549.69	.....	4,549.69	.....	.....	4,549.69
Allegheny River, Pennsylvania.....	6,134.29	.....	6,134.29	6,134.29	.....	.....
Dam at Herr's Island, Allegheny River near Pittsburgh, Pa.....	37,000.00	.....	37,000.00	659.10	.....	36,340.90
Improving—						
Delaware River, Pennsylvania and New Jersey.....	125,000.00	.....	125,000.00	72,645.00	.....	52,355.00
Frankford Creek, Pennsylvania.....	254.50	.....	254.50	.....	.....	254.50
Survey of Delaware River between Philadelphia, Pa., and Camden, N. J.....	5,000.00	.....	5,000.00	1,000.00	.....	4,000.00
Improving—						
Nanticoke River, Delaware.....	5,450.00	.....	5,450.00	5,450.00	.....	.....
St. Jones River, Delaware.....	43.00	.....	43.00	43.00	.....	.....
Choptank River, Delaware.....	8,000.00	.....	8,000.00	8,000.00	.....	.....
Corlica Creek, Maryland.....	30.10	.....	30.10	30.10	.....	.....
Chester River, Maryland.....	2,958.54	.....	2,958.54	.....	.....	2,958.54
Water passage between Deal's Island and the main-land, Maryland.....	4,669.91	.....	4,669.91	.....	.....	4,669.91
Potomac River.....	251,260.41	.....	251,260.41	238,260.41	.....	13,000.00
Wicomico River, Maryland.....	1,872.80	.....	1,872.80	.....	.....	1,872.80

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balances July 1, 1887.	Appropri- ated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
PUBLIC WORKS—continued.							
Harbors and rivers—Continued.							
Improving—							
Pocomoke River, Maryland.....	\$8,000.00			\$8,000.00	\$4,000.00		
Appomattox River, Virginia.....	873.00			873.00			
Archer's Hope River, Virginia.....	20.63			20.63			
Dan River, Virginia and North Carolina.....	8,800.00			8,800.00	8,800.00		
Mataponi River, Virginia.....	2,000.00			2,000.00			
North Landing River, Virginia and North Carolina.....	3,629.69			3,629.69			\$3,629.69
New River, Virginia and West Virginia.....	10,000.00		\$147.29	10,147.29			10,147.29
Nottaway River, Virginia.....	246.16			246.16			
Pamunkey River, Virginia.....	2,000.00			2,000.00			
Rappahannock River, Virginia.....	5,300.00			5,300.00	5,064.80		231.20
Stannett River, Virginia.....	2,455.62			2,455.62	1,890.02		565.60
Totusky River, Virginia.....	400.82			400.82	400.82		
York River, Virginia.....	3,656.28			3,656.28	642.20		3,014.08
Waterway from Chincoteague Bay to Indian River Bay, Virginia, Maryland, and Delaware.....	18,000.00			18,000.00	77.40		17,922.60
James River, Virginia.....	77,500.00			77,500.00			
Elk River, West Virginia.....	1,500.00			1,500.00			1,500.00
Great Kanawha River, West Virginia, payment to Charles McCafferty.....		\$30,370.15		30,370.15			30,370.15
Great Kanawha River, West Virginia, payment to D. M. and C. P. Dull.....		34,379.30		34,379.30			
Great Kanawha River, West Virginia.....	117,500.00			117,500.00	34,379.30		
Little Kanawha River, West Virginia.....	5,500.00			5,500.00	5,500.00		
Monongahela River, West Virginia.....	12.00			12.00			
Monongahela River, West Virginia and Pennsylvania.....	87,757.10			87,757.10	13.90		87,771.00
Shenandoah River, West Virginia.....	16,083.46			16,083.46			16,083.46
Black River, North Carolina.....	1,000.00			1,000.00	1,000.00		
Cape Fear River, North Carolina.....	74,050.00			74,050.00	70,550.00		3,500.00
Currituck Sound and North River Bar, North Carolina.....	5,500.00			5,500.00	5,500.00		
Contentious Creek, North Carolina.....	5,100.00			5,100.00			
Neherin River, North Carolina.....	415.47			415.47			415.47
New River, North Carolina.....	8,203.00			8,203.00	3,760.20		4,442.80
New River, North Carolina.....	8,500.00			8,500.00			
Roanoke River, North Carolina.....	13,100.00			13,100.00	11,000.00		2,100.00
Trent River, North Carolina.....	213.50			213.50			
Yadkin River, North Carolina.....	8,300.00			8,300.00	7,500.00		800.00
Waterway between Beaufort Harbor and New River, North Carolina.....	8,500.00			8,500.00			
Waccamaw River, South Carolina.....	3,900.00			3,900.00	3,900.00		
Congaree River, South Carolina.....	15.00			15.00			

	5. 87	1,005.37	5,000.00	8,000.00	1,005.37
Abiey River, South Carolina.....	1,000.00	5,000.00	8,000.00	1,005.37	1,005.37
Great Pedee River, South Carolina.....	3,000.00	3,000.00	17.20	3,452.80	3,452.80
Santee River, South Carolina.....	3,450.00	1,700.00	1,000.00	700.00	700.00
Wataree River, South Carolina.....	1,700.00	5,000.00	6,000.00		
Wapoon Cut, South Carolina.....	16,531.87	16,531.87	13,884.87		2,647.00
Altamaha River, Georgia.....	10,000.00	18,000.00	14,077.40		1,922.60
Chattahoochee River, Georgia and Alabama.....	22,000.00	22,000.00	20,107.54		1,892.46
Cosa River, Georgia and Alabama.....	70,105.00	70,105.00	66,721.83		1,483.17
Cumberland Sound, Georgia and Florida.....	1,000.00	11,000.00	9,000.00		1,999.80
Flint River, Georgia.....	7,000.00	7,000.00	7,000.00		
Ocmulgee River, Georgia.....	7,000.00	7,000.00	7,000.00		
Oconee River, Georgia.....	7,000.00	7,000.00	7,000.00		
Oostenaula and Coosa-watee Rivers, Georgia.....	385.07	1,121.86	1,121.86		212.20
Romley Marsh, Georgia.....	822.71	822.71	182.67		740.04
Savannah River, Georgia.....	3,417.66	3,417.66	3,025.80		3,417.66
St. Augustine's Creek, Georgia.....	4,000.00	4,000.00	8.60		3,974.20
Choctawhatchee River, Florida and Alabama.....	8.60	8.60	6,043.00		2,957.00
Caloosahatchee River, Florida.....	9,000.00	9,000.00	4,434.45		4,434.45
Escambia and Conecuh Rivers, Florida and Alabama.....	4,434.45	1,000.00	1,000.00		1,000.00
Inside passage between Ferdinandina and Saint John's, Florida.....	1,000.00	9,000.00	9,000.00		5,900.00
La Grange Bayou, Florida.....	9,000.00	105,484.80	99,584.80		
Manatee and Pease Rivers, Florida.....	105,484.80	1,008.60	1,008.60		1,457.00
St. John's River, Florida.....	1,008.60	7,500.00	6,043.00		74,811.40
Sawnee River, Florida.....	7,500.00	100,750.00	25,938.80		7,000.00
Alabama River, Alabama.....	100,750.00	7,000.00	5,000.00		5,000.00
Black Warrior River, Alabama.....	7,000.00	5,000.00	4,021.50		5,978.50
Cahaba River, Alabama.....	5,000.00	30,500.00	30,500.00		
Big Black River, Mississippi.....	5,000.00	2,500.00	2,500.00		
Tallahpoosa River, Alabama.....	30,500.00	3,000.00	3,000.00		
Warrior and Tombigbee Rivers, Alabama and Mississippi.....	2,500.00	23,100.00	23,100.00		
Big Sunflower River, Mississippi.....	3,000.00	4,025.80	4,025.80		
Noxubee River, Mississippi.....	23,100.00	16,038.55	16,038.55		
Pascagoula River, Mississippi.....	4,025.80	500.00	500.00		300.00
Pearl River, Mississippi.....	16,038.55	3,001.47	2,012.90		988.57
Biloxi Bay, Mississippi.....	500.00	333.33	333.33		333.33
Steele's Bayou, Mississippi.....	3,001.47	319.31	319.31		319.31
Yazoo River, Mississippi.....	1.99	4,904.32	4,904.32		
Amite River, Louisiana.....	319.31	1,800.00	1,800.00		
Bayou Black, Louisiana.....	4,904.32	14,180.71	11,060.50		3,120.51
Bayou Beauf, Louisiana.....	1,800.00	2,500.00	2,500.00		
Bayou Bartholomew, Louisiana and Arkansas.....	14,180.71	600.00	600.00		
Calcasieu River and Pass, Louisiana.....	2,500.00	79.61	79.61		79.61
Bayou Courtableau, Louisiana.....	600.00	17,000.00	15,584.60		1,405.40
Bayou D'Audenne, Louisiana.....	79.61	582.08	400.00		582.08
Bayou La Fourche, Louisiana.....	17,000.00	22,100.00	22,100.00		22,100.00
Red River, Louisiana and Arkansas.....	400.00				
Texas River, Louisiana.....	582.08				
Bayou Teche, Louisiana.....					
Connecting Bayou Teche with Grand Lake at Chenerton, La.....	22,100.00	2,000.00	2,000.00		
Improving.....		95,003.61	95,003.61		
Bayou Terre Bonne, Louisiana.....	2,000.00				
Aransas Pass and Bay, Texas.....	95,003.61				

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balances July 1, 1887.	Appropri- ated July 1, 1887 to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
PUBLIC WORKS—continued.							
Harbors and rivers—Continued.							
Improving—							
Mouth of Brazos River, Texas.....	\$12,250.00			\$12,250.00	\$2,323.10		\$9,926.90
Buffalo Bayou, Texas.....	10,000.00			10,000.00	10,000.00		
Cypress Bayou, Texas and Louisiana.....	8,000.00			8,000.00	8,000.00		
Protection of river bank at Fort Brown, Tex.	1,000.00			1,000.00			1,000.00
Improving—							
Ship channel in Galveston Bay, Texas.....	153,001.00			153,001.00	73,001.00		80,000.00
Neches River, Texas.....	11,087.84			11,087.84			11,087.84
Paso Cavallo, Texas.....	27,500.00			27,500.00			27,500.00
Sabine River, Texas.....	4,548.56			4,548.56			4,548.56
Sabine Pass, Texas.....	33,750.00			33,750.00	33,750.00		
Arkansas River, Arkansas.....	42,374.80			42,374.80	35,227.80		7,146.90
Little Red River, Arkansas.....	2,600.00			2,600.00	212.90		2,387.10
Red River above Fulton, Ark.....	3,300.00			3,300.00	3,300.00		
Black River, Arkansas and Missouri.....	500.00			500.00	500.00		
Fourche La Poudre River, Arkansas.....	500.00			500.00	500.00		
Removing obstructions in Arkansas River, Arkansas and Kansas.....	2,200.00			2,200.00	2,012.90		187.10
Improving—							
Saline River, Arkansas.....	.55			.55			.55
White River above Buffalo Shoals, Arkansas.....	60			60			60
St. Francis River, Arkansas and Missouri.....	1,000.00			1,000.00	1,000.00		
White River, Arkansas.....	6,430.10			6,430.10	4,730.10		1,700.00
Big Hatchee River, Tennessee.....	21.50			21.50	21.50		
Caneey Fork River, Tennessee.....	2,000.00			2,000.00	2,000.00		
Clinch River, Tennessee.....	3,500.00			3,500.00	3,500.00		
Cumberland River above Nashville, Tenn.....	77,000.00			77,000.00	7,000.00		70,000.00
Cumberland River below Nashville, Tenn.....	11,500.00			11,500.00	11,500.00		
French Broad River, Tennessee.....	4,000.00			4,000.00	4,000.00		
Tennessee River above Chattanooga, Tenn.....	4,000.00			4,000.00	4,000.00		
Tennessee River below Chattanooga, Tenn., Alabama, and Kentucky.....	97,500.00			97,500.00	97,500.00		
Big Sandy River, West Virginia and Kentucky.....	9,500.00			9,500.00	7,038.70		2,461.30
Cumberland River above mouth of the Jellico, Kentucky.....	5,000.00			5,000.00			5,000.00
Kentucky River, Kentucky.....	156,500.00			156,500.00	56,875.10		99,624.90
South Fork of Cumberland River, Kentucky.....	1,000.00			1,000.00			
Falls of the Ohio River at Louisville, Ky.....	284,500.00			284,500.00	131,307.20		153,192.80
Ohio River.....	228,840.98			228,840.98	163,182.14		65,658.84
Rocky River, Ohio.....	119.31			119.31			119.31
Sandusky River, Ohio.....	628.47			628.47			628.47
Muskingum River, Ohio.....	10,000.00			10,000.00	10,000.00		
White River, Indiana.....	3,800.00			3,800.00	2,531.50		1,268.50
Wabash River, Indiana and Illinois.....	43,500.00			43,500.00	24,233.70		19,266.30

Cabernet River, Illinois and Indiana	50,000.00	25,000.00	25,000.00	1,250.00	52,000.00	12,175.00	12,175.00
Illinois River, Illinois and Indiana	25,000.00	12,500.00	12,500.00	625.00	25,000.00	625.00	625.00
Mississippi River	1,276,823.18	638,411.59	638,411.59	31,920.58	1,276,823.18	31,920.58	31,920.58
Upper Mississippi River	4,000.00	2,000.00	2,000.00	100.00	4,000.00	100.00	100.00
Research at headwaters of Mississippi River	87,884.73	43,942.36	43,942.36	2,197.12	87,884.73	2,197.12	2,197.12
Gauging the waters of Lower Mississippi and its tributaries	1,400.00	700.00	700.00	35.00	1,400.00	35.00	35.00
Improving—							
Mississippi River from Des Moines Rapids to mouth of Illinois River, Illinois and Missouri	75,000.00	37,500.00	37,500.00	1,875.00	75,000.00	1,875.00	1,875.00
Mississippi River, between mouths of Ohio and Illinois Rivers, Illinois and Missouri	221,440.13	110,720.06	110,720.06	5,536.00	221,440.13	5,536.00	5,536.00
Survey of Mississippi River	8,393.50	4,196.75	4,196.75	209.84	8,393.50	209.84	209.84
Improving—							
Mississippi River, from Saint Paul to Des Moines Rapids, Minnesota, Iowa, Missouri, Illinois, and Wisconsin	255,000.00	127,500.00	127,500.00	6,375.00	255,000.00	6,375.00	6,375.00
Des Moines Rapids, Mississippi River, Iowa and Illinois	23,250.00	11,625.00	11,625.00	581.25	23,250.00	581.25	581.25
Dry dock at Des Moines Rapids Canal, Mississippi River	25,750.00	12,875.00	12,875.00	643.75	25,750.00	643.75	643.75
Removing obstructions in Mississippi River	20,039.39	10,019.69	10,019.69	500.98	20,039.39	500.98	500.98
Constructing jetties and other works at South Pass, Mississippi River	150,000.00	75,000.00	75,000.00	3,750.00	150,000.00	3,750.00	3,750.00
Improving—							
Missouri River from mouth to Sioux City, Iowa	145,000.00	72,500.00	72,500.00	3,625.00	145,000.00	3,625.00	3,625.00
Missouri River from Sioux City, Iowa to Fort Benton, Mont.	25,000.00	12,500.00	12,500.00	625.00	25,000.00	625.00	625.00
Survey of Missouri River above Missouri River Falls, at Fort Benton, Mont.	15,000.00	7,500.00	7,500.00	375.00	15,000.00	375.00	375.00
Removing obstructions in Missouri River	4,500.00	2,250.00	2,250.00	112.50	4,500.00	112.50	112.50
Improving—							
Gasconade River, Missouri	3,048.44	1,524.22	1,524.22	76.21	3,048.44	76.21	76.21
Osage River, Missouri and Kansas	5,500.00	2,750.00	2,750.00	137.50	5,500.00	137.50	137.50
Clinton River, Michigan	6,000.00	3,000.00	3,000.00	150.00	6,000.00	150.00	150.00
Detroit River, Michigan	4,500.00	2,250.00	2,250.00	112.50	4,500.00	112.50	112.50
Hay Lake Channel, Sault Ste. Marie River, Michigan	127,000.00	63,500.00	63,500.00	3,175.00	127,000.00	3,175.00	3,175.00
St. Clair Flats Canal, Michigan	11,250.00	5,625.00	5,625.00	281.25	11,250.00	281.25	281.25
Saginaw River, Michigan	14,750.00	7,375.00	7,375.00	368.75	14,750.00	368.75	368.75
Examination of Portage Lake and Lake Superior Ship Canals	5,105.00	2,552.50	2,552.50	127.63	5,105.00	127.63	127.63
Improving—							
St. Mary's River and St. Mary's Falls Canal	182.31	91.15	91.15	4.56	182.31	4.56	4.56
St. Mary's River, Michigan	203,000.00	101,500.00	101,500.00	5,075.00	203,000.00	5,075.00	5,075.00
Chippewa River, Wisconsin	4,021.50	2,010.75	2,010.75	100.54	4,021.50	100.54	100.54
Fox and Wisconsin Rivers, Wisconsin	10,000.00	5,000.00	5,000.00	250.00	10,000.00	250.00	250.00
Fox River, Wisconsin	28,000.00	14,000.00	14,000.00	700.00	28,000.00	700.00	700.00
Damages by improvement of the Fox and Wisconsin Rivers	111,746.12	55,873.06	55,873.06	2,793.70	111,746.12	2,793.70	2,793.70
Improving—							
Red River of the North, Minnesota and Dakota	20,141.90	10,070.95	10,070.95	503.55	20,141.90	503.55	503.55
Minnesota River, Minnesota	42.00	21.00	21.00	1.05	42.00	1.05	1.05
Yellowstone River, Montana and Dakota	16,000.00	8,000.00	8,000.00	400.00	16,000.00	400.00	400.00
Sacramento and Feather Rivers, California	120,000.00	60,000.00	60,000.00	3,000.00	120,000.00	3,000.00	3,000.00
San Joaquin River, California	8,750.00	4,375.00	4,375.00	218.75	8,750.00	218.75	218.75
Columbia River at Cascades, Oregon	78,497.87	39,248.93	39,248.93	1,962.45	78,497.87	1,962.45	1,962.45
Month of Columbia River, Oregon	152,500.00	76,250.00	76,250.00	3,812.50	152,500.00	3,812.50	3,812.50
Willamette River above Portland, Oregon	1,496.13	748.06	748.06	37.40	1,496.13	37.40	37.40
Coquille River, Oregon	3,750.00	1,875.00	1,875.00	93.75	3,750.00	93.75	93.75

Statement of appropriations under direction of the War Department for the fiscal year ended June 30, 1888, etc.—Continued.

Title of appropriation.	Balances July 1, 1887.	Appropri- ated July 1, 1887, to June 30, 1888.	Repayments July 1, 1887, to June 30, 1888.	Aggregate available.	Payments July 1, 1887, to June 30, 1888.	Carried to surplus fund June 30, 1888.	Balances June 30, 1888.
MISCELLANEOUS OBJECTS—continued.							
<i>War claims of States—continued.</i>							
Re-imbursement the State of Kansas for expenses in suppressing the rebellion.							
Total war claims of States	\$7,394.51	1,138,786.36	\$237.01	1,146,084.87	1,140,786.36		\$5,298.51
<i>Relief acts.</i>							
Claims of loyal citizens for supplies furnished during the rebellion.	6,939.00			6,939.00			6,939.00
Claims for quartermasters' stores and commissary supplies.	4,001.84			4,001.84	1,254.11	\$250.00	2,367.73
Claims of officers and men of the Army for destruction of private property.		34,947.33		31,947.33	34,947.23		
Awards for quartermasters' stores and commissary supplies taken by Army in Tennessee.	130.00			130.00			130.00
Miscellaneous claims audited by Third Auditor under section 4, act June 14, 1878.	2,260.75			2,260.75			2,260.75
Relief of R. G. Huston & Co.		7,572.48		7,572.48	7,572.48		
Relief of John Burkhardt.		602.47		602.47	602.47		
Relief of Peter Mack and others.		2,780.24		2,780.24	2,780.24		
Relief of John C. Adams, administrator of Joseph C. Adams.		4,435.00		4,435.00	4,435.00		
Payment to Emory R. Seward for removing rock in New Rochelle Harbor, New York.		8,174.79		8,174.79	8,174.79		
Relief of William P. Gornuch.		300.00		300.00	300.00		
Relief of heirs of Felix Livermore.		768.50		768.50	768.50		
Relief of Thomas J. Taylor.		861.00		861.00	861.00		
Total relief acts	13,340.59	60,545.81		73,886.40	61,898.92	280.00	11,706.48
<i>Erection of monuments.</i>							
Erection of monumental column at Yorktown, Va.	5,176.74			5,176.74			5,167.74
Monument at Washington's headquarters, Newburgh, N. Y.	24,000.00			24,000.00	24,000.00		
Pedestal for statue of James A. Garfield.	482.75			482.75	482.75		
Statue to memory of La Fayette and compatriots.	46,491.62			46,491.62			46,491.62
Monuments or tablets at Gettysburgh.		15,000.00		15,000.00	100.00		14,900.00
Total monuments	76,151.11	15,000.00		91,151.11	24,582.75		66,568.36
Total miscellaneous objects	2,325,008.93	7,188,576.27	\$1,030.59	9,515,244.79	6,698,350.95	196,325.79	2,620,568.05
Deduct repayments in excess of payments					1,059.59		
Actual expenditures					6,697,291.36		

RECAPITULATION.

Salaries, contingent expenses, and postage.....	\$102,923.83	\$2,053,647.51	.....	\$2,156,171.36	\$1,973,038.97	\$66,006.07	\$118,110.49
Military establishment, Army and Military Academy.....	1,078,314.91	24,657,488.41	.....	20,385,708.83	23,337,245.11	812,548.96	2,184,002.86
Public works.....	12,923,377.11	2,230,617.75	.....	15,158,076.19	9,162,000.96	40,476.00	2,946,002.16
Miscellaneous objects.....	2,325,608.93	7,186,576.27	.....	9,513,244.70	6,698,350.95	196,825.70	2,620,568.05
Total.....	17,029,724.81	36,130,328.94	.....	53,165,188.67	41,170,350.99	1,125,857.21	10,869,590.47
Deduct repayments in excess of payments.....	.....	.....	.....	.....	5,143.92	.....	.....
Actual expenditures.....	.....	.....	.....	.....	41,165,107.07	.....	.....

REPORT
OF THE
MAJOR-GENERAL COMMANDING THE ARMY.



REPORT
OF THE
MAJOR GENERAL COMMANDING THE ARMY.

HEADQUARTERS OF THE ARMY,
Washington, October 25, 1888.

SIR: The duty has devolved upon me of submitting to you a record of military events which have occurred since the last annual report of the General Commanding the Army. This must necessarily consist mainly of the reports of the division and department commanders, other commanding officers, and the chief staff officers.

The illustrious General of the Army, Philip Henry Sheridan, died on the 5th of August, at Nonquitt, Mass. His remains were interred at Arlington on the 11th of August, with the simple military ceremonies prescribed for an officer of his high rank, and so befitting his soldierly character. These military ceremonies were accompanied by the most solemn and impressive services of the Church.

Major-General Alfred H. Terry, distinguished alike for gallantry in action and for ability in administration, having been compelled to seek rest in retirement from active service, was placed on the retired list of the Army on the 5th of April last.

Major-General George Crook, appointed in place of General Terry, was assigned on the 24th of April to command the Division of the Missouri, and Brigadier-General John R. Brooke, appointed in place of General Crook, was assigned, on the same date, to command the Department of the Platte.

With the exceptions above noted, the commands of divisions and departments remain the same as at the date of the last annual report, and their organization has not been changed.

The following transfers, involving changes in the stations of some regiments, have been effected:

The Third and Twenty-fifth Regiments of Infantry, within the Department of Dakota.

The Fifth Regiment of Infantry, from the Department of Dakota to the Department of Texas.

The Sixteenth Regiment of Infantry, from the Department of Texas to the Department of the Platte.

A battalion of the Sixth Regiment of Infantry, from Fort Douglas, Utah, to Fort Lewis, Colorado.

The Twenty-second Regiment of Infantry, from the Department of the Missouri to the Department of Dakota.

The Thirteenth Regiment of Infantry, from the Department of Arizona to the Department of the Missouri.

The Twenty-fourth Regiment of Infantry, from the Department of the Missouri to the Department of Arizona.

A battalion of the Seventh Cavalry, from Fort Meade, Dakota, to Fort Riley, Kansas, thence assigned to stations in the Department of the Missouri.

The Eighth Regiment of Cavalry, from the Department of Texas to the Department of Dakota.

Battery G, First Artillery, from Fort Monroe, Virginia, to the Department of California; and battery F, First Artillery, from that department to Fort Monroe.

Consequent upon the foregoing recited movements there were changes, within some departments, as approved by division commanders, and reported by them.

THE REPORT OF THE ADJUTANT-GENERAL

has embraced detailed information covering the organization and strength of the Army; distribution of troops, by departments and divisions; geographical divisions, departments, and posts, with post-offices, telegraph and railroad stations, etc.; and casualties during the fiscal year ended June 30, 1888, with assignments of recruits and reenlistments during the same period. The tabular statements relative to the number of men drawing increased pay; casualties by discharge, death, and desertion, 1880-'88; and the recruiting service, also afford self-explanatory data.

THE REPORT OF THE INSPECTOR-GENERAL

has indicated a satisfactory condition of the Army, in nearly all respects. Important suggestions are made relative to some details which are within the scope of Executive authority. These will be given timely consideration. The services of the several staff departments, in immediate relation to the troops, have been performed in a thoroughly efficient manner.

DIVISION OF THE PACIFIC.

The reports of Major-General Howard and of the department commanders show that the past year has been one of peace among the Indians, formerly so troublesome in those departments. The troops have been fully occupied in rifle practice and the duties of instruction camps, marches, and field operations, simulating those of actual war with hostile Indians.

DIVISION OF THE MISSOURI.

Major-General Crook has reported that, with a single exception, the use of the troops in his division has been limited to the prevention of possible trouble with some of the Indian tribes. That exception consisted in the suppression of disorder among the Crow Indians in the Department of Dakota. This was promptly and thoroughly effected by the troops under the personal command of Brig. Gen. Thomas H. Ruger, who has given in his report a full and interesting account of the whole trouble.

Much of the favorable season has been occupied in practice marches and camps of instruction, thus securing to the troops a large part of the valuable knowledge and experience to be gained in active field

service. This system should be pursued and extended as far as practicable. All the troops should spend a portion of each year in camp, and in marches and maneuvers, simulating as nearly as possible the operations of actual war.

Major-Generals Howard and Crook have made several important recommendations, all of which are worthy of special consideration.

The respective department commanders in the two divisions and the commanding officer of the District of New Mexico have given the details of all the service performed by the troops. Their reports also contain several valuable suggestions for the benefit of the military service and of the Indian tribes, to which special attention is invited. I deem it advisable to refer to these reports, which are well worthy of careful perusal, rather than attempt to condense them. I will, in due time, make the subjects therein discussed matter of separate communications and recommendation to the Secretary of War, to the end that action may be taken as far as present laws will permit, confining my present recommendations mainly to such matters as seem to require legislation

DIVISION OF THE ATLANTIC.

The reports of the chiefs of the several staff departments of this division, transmitted herewith, give the details of all the movements of troops and of the services rendered in the departments.

The troops have been constantly and fully occupied, especially in the prescribed practice, with such arms and materials as have been available.

The system of practice of the artillery with heavy sea-coast guns has been steadily developed, and is now to be adopted, with the approval of the War Department, for the entire sea-coast of the country. The zeal and efficiency displayed by officers and men and the progress already made give ground for confidence that the troops will be fully prepared to handle, effectively, the weapons of modern construction, and of the largest caliber, as soon as such weapons can be made ready to be placed in their hands.

A moderate increase in the numerical strength of the force to handle the new guns will be indispensable. All the details showing the necessity for such an increase were given in the last annual report from the Division of the Atlantic, and need not be repeated here. I respectfully renew the recommendation then made, that two regiments be added to the artillery, but without any material increase in the number of officers, and with a much-needed change of organization, corresponding to that of the infantry and cavalry. This will give a large increase of effective strength in proportion to the number of commissioned officers. To effect this necessary increase, about five thousand enlisted men should be added to the number now allowed by law.

Batteries B, G, H, and L, Second Artillery, stationed at Fort Barrancas and Saint Francis Barracks, Florida, were placed in camp near Huntsville, Alabama, as a sanitary precaution; and Batteries K and M of the same regiment were sent by sea from New Orleans to New York Harbor for like reasons. It is a gratifying fact that no case of yellow fever has occurred in the Army this year.

MILITARY INSTRUCTION.

The instruction of the Army in all its branches is now provided for in a very satisfactory manner. The Military Academy, whose fame has

long been not only national, but world wide, maintains its high character in all respects.

The Artillery School, at Fort Monroe, has developed into a very efficient post-graduate school for officers of artillery.

The Infantry and Cavalry School, at Fort Leavenworth, though of much later origin, is rapidly becoming all that could be desired for the efficient instruction of the young officers of those arms.

The Engineer Torpedo School, at Willets Point, to which a few young officers of artillery are also admitted every year, affords thorough instruction in that important branch of the military service.

In addition to the above, an establishment is now in progress at Fort Riley, Kansas, designed for the practical instruction of cavalry and light artillery combined, the training of young horses and the instruction of recruits for the mounted service, the recuperation of animals temporarily broken down in the service, and in general for the care of all those important material interests which belong especially to the mounted service, and which require unusual care to avoid great expense and secure the highest degree of efficiency.

The commanding officer of the Infantry and Cavalry School has reported a number of young officers who have, without adequate excuse, failed to meet the professional requirements of that institution. I respectfully submit that these officers have proved themselves incompetent, and are thus debarred from regular promotion under the provisions of paragraph 36 of the Army Regulations. In this connection I beg leave to suggest that the necessary examinations for promotion of officers of the line are now sufficiently provided for by law in the paragraph of regulations above referred to, and I recommend that hereafter no officer of infantry, cavalry, or artillery who has been officially reported by his commanding officer for "disability or other incompetency" shall be promoted to a higher grade until he shall have passed a satisfactory examination, to be prescribed by the War Department.

Much valuable service is now rendered by officers of the Army, in aid of general military education throughout the country, by their service as instructors at colleges and as inspectors of the encampments of troops of the national guards of several States. A very important addition to this kind of service may soon be made by the practical instruction in sea-coast defense of such portions of the national guard as may be organized for that branch of the public service.

The officers of the Army, of all grades, may be relied upon for the most cordial and zealous co-operation with the State troops in all such measures as may be adopted for practical military instruction.

FORTIFICATION AND ARMAMENT.

The measures now adopted by the present Congress are understood to be the beginning of a well-matured and settled policy to make adequate provision for the sea-coast defense. It only remains for those charged with this important work to justify the confidence reposed in them, and thus justify the additional appropriations which may be required from year to year to carry the work forward to ultimate completion.

During the past twenty years the necessities of the service in the Indian country have caused the posts along the sea-board and northern lakes to be correspondingly neglected. At many places the barracks and quarters, as well as the fortifications, have been left to fall into a state of decay.

The time and circumstances now seem peculiarly favorable for placing the sea-coast and frontiers of the country in a state of security becoming the dignity of a great and proud, though just and peaceful, nation.

ABSENCE OF OFFICERS.

The efficiency of the Army is much impaired by the absence of officers from their regiments or corps. Many of these absent officers are rendering services which are more valuable in time of peace than their regular duties, while many others are not rendering service of any kind, because of physical disability. It would be a great benefit to the public service if all these disabled officers could be retired, and their places filled by young and active men. I respectfully renew the recommendation heretofore made, that the retired list be temporarily increased for this purpose. In a few years more the great number of veterans who were disabled in the late war will have passed away, when the retired list, which now seems large, will become greatly reduced in numbers. In the mean time the Army should be kept always young and vigorous, fully prepared for any service which may be required of it.

PAY OF OFFICERS.

It is believed the reduction of pay of officers on leave of absence is no longer necessary, and that it results in relative favoritism to the few officers who have other means of support beside their pay. Especially in the case of officers who desire to travel in foreign countries for professional improvement, under special authority of the War Department, the reduction of pay is injurious to the public service.

DESERTIONS.

The number of desertions from the Army in the past year has been 2,436, and the average for the last five years 2,673. That is, 10.3 per cent. of the entire legal enlisted strength of the Army is lost by desertion every year; 51.5 per cent in five years. The report of the Adjutant General has indicated that less than 80 per cent. of the enlisted men of the Army serve out their terms of enlistment, or obtain honorable discharges. The remaining 20 per cent. are of the unreliable class who enlist and desert, or are dishonorably discharged, after comparatively short service. Assuming that the *value* of an army is directly proportioned to the number of riflemen, cannoneers, and troopers who can be relied upon to perform the service required of them, this represents a loss to the United States of *several millions of dollars a year*, besides the diminution, in efficiency, due to the unreliable character of so large a proportion of the men. The magnitude of this evil has long been recognized, also the necessity for some effective remedy. Its causes have been diligently sought for and earnest efforts made to remove them as far as possible but with little success. The subject has been intelligently investigated and discussed by many able officers. The causes of desertion, though numerous, are not difficult to define. Some, at least, of the appropriate remedies seem equally clear and not difficult to apply. After a careful consideration of the views expressed by the many who have discussed the subject, I recommend the following, viz:

(1) That the reward, to be paid for the apprehension of a deserter and his delivery at the nearest military post, be increased to \$100; to be re-imbursed out of his retained pay.

(2) That all United States marshals and their deputies, and all sheriffs, constables, and police officers of the several States, Territories, and cities be authorized by law to arrest and deliver deserters.

(3) That a large part, at least one-half, of the pay of soldiers, enlisted hereafter, be retained until they shall have fulfilled their contract of service, either by serving out their term of enlistment, or by death in service, or honorable discharge. To this the Secretary of War should be authorized to make exception in the cases of men who are known to devote their pay to the support of dependent relatives.

(4) That it be made practicable, *in time of peace*, for an enlisted man to dissolve his contract of enlistment in a manner honorable to himself and just to the Government, by obtaining a discharge with forfeiture of so much of his retained pay as may be necessary to reimburse the United States for the expense incurred in the enlistment, clothing, transportation, etc., of a recruit to supply his place. In short, make it practicable for a soldier to terminate a contract, with which he has become dissatisfied, in a *fair and honorable* way, and make his punishment as sure as possible if he attempts to terminate it in a *dishonorable* way.

I limit myself to the above recommendations, as being manifestly appropriate and unobjectionable. I believe their adoption would greatly reduce the number of desertions and increase the contentment and efficiency of the troops. The large element of professional deserters must continue to curse the Army until some unobjectionable means can be devised by which deserters can be identified when they attempt to re-enlist. This subject will be given careful consideration.

RIFLE PRACTICE.

Instruction in the use of the rifle and carbine has been satisfactorily conducted during the year, and with very favorable results. The returns of the various competitions, and reports from the various departments, show continuous improvement in marksmanship.

Rifle practice having been firmly established and the system of instruction well understood throughout the Army, the season for range firing, which has been gradually diminished, was this year still further reduced from three to two months. The latter period affords sufficient opportunity for completing the instruction of the soldier, when he has been properly grounded in the preliminary exercises, and leaves a greater portion of the year for attention to the many other essential features of his military life.

The company, file, and volley firing, so necessary to complete the full instruction and perfect the fire discipline of the various organizations, has been generally omitted during the past year. This was, unfortunately necessitated by the reduction in the allowance of ammunition, a consequence of the limited appropriation for its manufacture; but it is hoped that the increased appropriation for the coming season will permit the prosecution of these more advanced features of rifle instruction. It is now proposed to require increased attention to pistol practice, and to introduce it as a feature in the annual competitions for those soldiers regularly armed with that weapon. The proposition to inaugurate separate competitions for the cavalry, using the pistol and the carbine instead of the rifle, will receive due consideration. In this connection a definite conclusion with reference to the modified carbine lately subjected to trial is now much to be desired. I would also suggest that the time has now come to replace our single-loader by a magazine gun of reduced caliber.

SIGNAL SERVICE.

Efficient signal and telegraph service is necessary to the Army, at all times, and indispensable in time of war. This service is a specialty, too difficult to be learned by all officers and men employed in other branches of the military service. Hence a small special signal corps must be maintained, and selected officers and men of each regiment of the line should be thoroughly instructed and equipped, so that when troops take the field the signal and telegraph service may be sufficiently provided for.

Early attention will be given to this subject, with a view to remedying the defective instruction referred to by the Chief Signal Officer. Electrical appliances for the rifle ranges and for the practice batteries of the sea-coast artillery are essential. The heliograph, in addition, is of great value in operations against Indians in some portions of the country. I recommend that liberal appropriation be made for this class of materials.

GARRISON COURTS.

As the simplest method of effecting a much-needed reform, I recommend that Article 82 of the Rules and Articles of War, providing for the appointment of garrison courts, be so amended as to read like Article 116, which relates to courts of inquiry, *consisting of one or more officers, not exceeding three, and a recorder*, instead of "consisting of three officers."

INDIANS.

Substantial progress is being made toward a solution of the great Indian problem. Danger of savage warfare is continually diminishing, and the time is not very distant when, it may be hoped, that danger may disappear. But for the present and near future increased vigilance, caution, and preparation are and will be necessary, for the reason that the rich settlements now surrounding the Indian reservations render possible greater destruction of life and property in a few days than was formerly possible during a long period of hostilities. Hence the military posts, on and near the great Indian reservations, should be strengthened, while smaller ones, no longer necessary, should be broken up. Considerable appropriations of money will yet be required to carry out this policy. But the wisdom and ultimate economy of the policy are manifest, and it has already received the sanction of Congress as well as that of the Executive. I recommend that liberal appropriations be made to complete the work so well begun.

I have the honor to be, sir, your obedient servant,

J. M. SCHOFIELD,
Major-General, Commanding.

Hon. WILLIAM C. ENDICOTT,
Secretary of War.

REPORTS

TO THE

MAJOR-GENERAL COMMANDING THE ARMY.

REPORT OF THE ADJUTANT-GENERAL.

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 5, 1888.

GENERAL: Pursuant to your instructions, I have the honor to submit the annual returns of the Army:

- A.—Organization of the Regular Army.
- B.—Return showing actual strength of the Regular Army.
- C.—Distribution of troops in the Department of the East—Division of the Atlantic.
- D.—Distribution of troops in the Departments of the Missouri, Texas, the Platte, and Dakota—Division of the Missouri.
- E.—Distribution of troops in the Departments of California, the Columbia, and Arizona—Division of the Pacific.
- F.—Geographical divisions, departments, and posts, with distribution of troops, post-offices, telegraph stations, and nearest railroad stations or boat landings.
- G.—Statement of casualties during the fiscal year ended June 30, 1888.
- H.—Statement of assignment of recruits and re-enlistments during the fiscal year ended June 30, 1888.

The number of enlisted men now in the service who are drawing increased pay under act of Congress of August 4, 1854, is as follows:

Five years' continuous service	3,989
Ten years' continuous service	1,710
Fifteen years' continuous service	1,169
Twenty years' continuous service	493
Twenty five years' continuous service	55
Thirty years' continuous service	14
Thirty-five years' continuous service	6
Total	7,436

The number of those who will become entitled to increased pay under act of Congress of May 15, 1872, during the fiscal year ending June 30, 1890, is—

Re-enlisted pay	456
One dollar per month for third year of service	4,886
Two dollars per month for fourth year of service	3,236
Three dollars per month for fifth year of service	2,397
Total	10,975

and the number of enlisted men in service whose terms will expire during the same fiscal year is 4,056.

The officers of the Adjutant-General's Department are properly assigned and in the discharge of their appropriate duties.

DESERTION.

I regret having to report that the number of desertions during the past year exceeds by 190 the number reported for the preceding year. As an aid in investigating and considering this vital question, I beg to subjoin two tables, one exhibiting for each year since 1880 the number of men in the Army drawing increased pay (under the acts of August 4, 1854, and May 15, 1872) for service ranging from three to thirty years and upward; the other, showing the casualties by death, discharge, and desertion occurring during the same period.

Number of men in the Army drawing increased pay, 1880-'88.

Year.	Act of August 4, 1854.						Act of May 15, 1872.			
	Five years.	Ten years.	Fifteen years.	Twenty years.	Twenty-five years.	Thirty years.	Re-enlisted pay.	\$1 for third year.	\$2 for fourth year.	\$3 for fifth year.
1880.....	3,762	1,872	227	130	97	41	567	2,911	3,057	3,662
1881.....	3,880	1,934	310	140	100	50	640	3,820	3,634	3,874
1882.....	3,402	1,806	671	145	93	51	536	3,412	3,507	3,429
1883.....	3,355	1,789	796	105	99	50	551	5,398	3,647	2,478
1884.....	3,451	1,840	708	119	86	49	539	6,650	4,098	3,220
1885.....	3,577	1,637	1,052	134	76	39	530	4,691	3,318	2,755
1886.....	3,497	1,619	1,183	240	71	32	591	3,935	3,879	2,938
1887.....	3,407	1,521	1,194	251	74	40	591	3,910	3,721	2,752
1888.....	3,989	1,710	1,169	493	55	14	456	4,886	3,236	2,397

Casualties by discharge, death, and desertion, 1880-'88.

Year.	Discharges.							Deaths.	Desertions.
	Expiration of service.	Disability.	Court-martial.	Civil courts.	Minority.	By order.	Total.		
1880.....	3,158	880	482	15	116	653	5,304	235	2,043
1881.....	4,465	896	478	16	123	586	6,564	248	2,361
1882.....	3,926	1,000	578	8	181	478	6,181	223	3,741
1883.....	3,022	1,145	850	9	170	745	5,950	221	3,578
1884.....	3,200	1,066	978	14	226	477	6,051	249	3,672
1885.....	3,160	833	933	5	201	478	5,601	234	2,927
1886.....	3,609	704	751	3	152	617	5,936	182	2,090
1887.....	3,437	716	539	3	158	447	5,306	237	2,240
1888.....	3,285	807	589	4	193	312	5,214	203	2,436

An examination of the data contained in the first of the above tables shows the continual presence in the ranks of an average of 18,000 men with a service of three years and upward, or 72 per cent. of the legal strength of the Army. This fact confirms the statement, made by me in previous reports, that the larger proportion of deserters were men of less than three years' service. Measures have been taken for years to investigate the cause, real or alleged, of desertion, but with indifferent

success, beyond indicating that the principal causes are, dissatisfaction with Army life and its restraints; restlessness, with recklessness of obligations assumed; and a desire to secure transportation to distant and supposed favorable points in the West. Desertion, no more than any other crime, can never be eradicated, but it would, I am convinced, be greatly lessened by the adoption of remedial measures, the most effective of which are, the reduction of term of service from five to three years, and the authorization of Congress for the purchase of discharge by men of good character, but who are desirous to leave a service for which they find themselves unfitted.

RECRUITING SERVICE.

The table below exhibits the operations of this important branch of the service since my assuming the duties of Adjutant-General of the Army:

Year.	Total No. of applicants.	Total No. of rejections.	Accepted recruits.				Total.
			White.	Colored.	Natives.	Foreigners.	
1880	23,767	18,761	4,548	458	3,441	1,565	5,006
1881	24,547	18,910	5,370	267	3,821	1,816	5,637
1882	28,884	21,150	7,218	516	4,907	2,827	7,734
1883	27,669	19,738	7,461	470	4,838	3,097	7,931
1884	30,064	21,259	8,221	554	5,233	3,543	8,775
1885	26,223	19,650	6,587	577	4,222	2,942	7,164
1886	23,421	18,094	4,847	480	3,306	2,021	5,327
1887	21,698	15,530	5,587	581	3,788	2,380	6,168
1888	24,710	18,017	5,966	727	4,136	2,557	6,693
Grand total	230,953	170,518	55,805	4,630	37,691	22,744	60,435
Yearly average	25,661	18,946	6,200	515	4,188	2,527	6,715

The audited accounts of the gross yearly expenditures for the recruiting service give, as the average cost per man, \$14.82.

Since October 1, 1887, the recruiting service has been conducted, as during the preceding year, under one superintendent stationed at New York City, with depots for the general service at David's Island, New York Harbor, and Columbus Barracks, Ohio, and a depot for the mounted service at Jefferson Barracks, Missouri.

October 1, 1887, recruiting rendezvous were in operation at the following points: Four in New York City; two in each of the cities of Philadelphia, Baltimore, Cincinnati, and Saint Louis; and one each at Boston, Portland, Albany, Buffalo, Pittsburgh, Cleveland, Detroit, Chicago, Milwaukee, Denver, Washington, Richmond, Camden, N. J., and Atlanta.

In October, November, and December, 1887, rendezvous were established at Charleston, South Carolina, Davenport, Iowa, Evansville, Indiana, Quincy, Illinois, Saint Paul, Minnesota, Memphis, Tennessee, Newark, New Jersey, and Springfield, Massachusetts.

In December, 1887, one of the rendezvous at Saint Louis was transferred to Annapolis, Maryland.

The rendezvous at Denver was discontinued December 31, 1887; those at Atlanta, Richmond, and Charleston, March 31, 1888, and the rendezvous at Quincy, Illinois, June 30, 1888. The rendezvous at Charleston was closed because colored recruits were no longer required; the other rendezvous had ceased to be as productive as desired, and the condition of the recruiting appropriation called for the exercise of the strictest economy of expenditure.

Additional rendezvous have been recently established at Saint Louis and Chicago, and one is to be opened at Augusta, Georgia, after the danger from yellow fever shall have passed. Instructions have also been given for the transfer of the rendezvous at Annapolis, Maryland, to Wheeling, West Virginia.

As a matter of precaution, recruiting at the Memphis rendezvous has been suspended during the prevalence of yellow fever in neighboring sections.

The rendezvous at Charleston, South Carolina, supplied large numbers of colored recruits. The colored regiments, both cavalry and infantry, have of late been kept well filled, and it has been necessary, during the greater part of the year, to restrict the enlistment of colored applicants to the very best men.

Notwithstanding every effort has been made, so far as the recruiting appropriation would warrant, to secure the necessary recruits to fill the Army, it is still more than 1,800 below the authorized strength of 25,000 enlisted men, and many of the regiments are greatly reduced.

During the latter part of the last fiscal year great care had to be exercised to avoid exceeding the appropriation for that year. For the present year an increased appropriation has been secured, but it only became fully available with the approval of the Army appropriation bill, September 22, 1888, to which time the expenditures were limited to a corresponding amount of the appropriation for the last fiscal year.

Recruiting officers have now been instructed to make increased exertions to secure desirable recruits, and, by judicious advertising and a free use of recruiting posters, to make known the inducements offered to good men to enter the ranks of the Army.

In cities where only one rendezvous is in operation enlistments are made for both the mounted and general services.

The total number of enlistments and re-enlistments in the Army (excluding those outside of the legal limit of 25,000 men) for the fiscal year ended June 30, 1888, was 7,905, classified as follows:

For the general and mounted services.....	5,578
For the departmental recruiting service	1,095
For the Engineer Battalion.....	20
	6,693
For special regiments, detachments, etc.....	1,212

Of the 6,693 accepted recruits 4,136 were native born and 2,557 of foreign birth; 5,966 were white and 727 colored.

Eighteen thousand and seventeen applicants for enlistment (nearly 73 per cent. of the whole number) were rejected by the recruiting officers on account of physical, mental, or moral disqualifications. This indicates that the true interests of the service have been faithfully guarded by recruiting officers, notwithstanding the urgent demand for recruits.

All newly-enlisted recruits of the general and mounted services are still retained at least three months at the general depots for instruction before assignment to regiments, as the results of this plan have generally proved very satisfactory.

Respectfully submitted.

R. C. DRUM,
Adjutant-General.

Major-General JOHN M. SCHOFIELD,
Commanding the Army.

$$=$$

Lieutenant.

ward at military prison					
leisure at depots and on route					
Indian scouts					
General-service clerks and messengers					
	(c) 3	2,189	40	38	26,738
			40		
			1		
		482			
Grand aggregate					812
Military Academy					697
Retired					

C.—Position and distribution of troops in the Division of the Atlantic, commanded by Major—the latest returns on file in the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	Number of companies.	GARRISONS.	PRESENT.				
				Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.
				Divis'n staff	1	3	1	1	1
Fort Adams, R. I.	Near Newport.	Col. H. W. Closson, 4th Art.	5	4th Art.					
Fort Warren, Mass. . . .	Boston Harbor.	Capt. J. B. Campbell, 4th Art.	2	4th Art.					
Fort Preble, Me.	Near Portland.	Maj. J. B. Rawles, 4th Art.	1	4th Art.					
Fort Trumbull, Conn. . . .	New London.	Lieut. Col. John Mendendall, 4th Art.	2	4th Art.					
Fort Wood, N. Y. H. . . .	Bedloe's Island.	First Lieut. W. H. Wheeler, 11th Inf.	1	11th Inf.					
Fort Hamilton, N. Y. . . .	New York Harbor. . . .	Col. Alexander Piper, 5th Art.	4	5th Art.					
Fort Columbus, N. Y. . . .	Governor's Island. . . .	Maj. M. P. Miller, 5th Art.	3	5th Art.					
Fort Wadsworth, N. Y. . . .	New York Harbor. . . .	Lieut. Col. Richard Loder, 5th Art.	1	5th Art.					
Fort Niagara, N. Y. . . .	Youngstown.	Maj. J. H. Page, 11th Inf.	2	11th Inf.					
Fort Schuyler, N. Y. . . .	Throg's Neck.	Maj. R. H. Jackson, 5th Art.	2	5th Art.					
Fort Ontario, N. Y. . . .	Oswego.	Capt. G. K. Sanderson, 11th Inf.	1	11th Inf.					
Fort Porter, N. Y. . . .	Buffalo.	Maj. Sam'l Ovenshine, 23d Inf.	2	23d Inf.					
Madison Barracks, N. Y. . . .	Sackett's Harbor.	Col. R. I. Dodge, 11th Inf.	5	11th Inf.					
Plattsburgh Barracks, N. Y. . . .	Plattsburgh.	Capt. O. B. Reed, 11th Inf.	1	11th Inf.					
Fort Brady, Mich.	Sault Ste. Marie.	Capt. James Henton, 23d Inf.	2	23d Inf.					
Fort Wayne, Mich. . . .	Detroit.	Col. H. M. Black, 23d Inf.	4	23d Inf.					
Fort Mackinac, Mich. . . .	Michillimackinac Island. . . .	Capt. G. A. Goodale, 23d Inf.	2	23d Inf.					
Fort McHenry, Md. . . .	Baltimore.	Lieut. Col. L. L. Livingston, 3d Art.	3	3d Art.					
Washington Barracks, D. C. . . .	Washington.	Col. H. G. Gibson, 3d Art.	6	3d Art.					
Fort Monroe, Va. ....	.....	Col. J. C. Tidball, 1st Art.	5	1st, 2d, 3d, 4th, and 5th Art.					
Little Rock Barracks, Ark. . . .	Little Rock.	Maj. F. L. Guenther, 2d Art.	2	2d Art.					
Mount Vernon Barracks, Ala. . . .	Mount Vernon.	Maj. Wm. Sinclair, 2d Art.	2	2d Art.					
Camp Monte Sano, Ala. . . .	Huntsville.	Lieut. Col. L. L. Langdon, 2d Art.	4	2d Art.					
Jackson Barracks, La. . . .	New Orleans.	Maj. C. B. Throckmorton, 2d Art.	2	2d Art.					
Newport Barracks, Ky. . . .	Newport.	Maj. E. C. Bainbridge, 3d Art.	1	3d Art.					
Fort Myer, Va.	Near Washington, D. C. . . .	Maj. L. H. Carpenter, 5th Cav.	2	4th and 6th Cav.					
Total Division of the Atlantic			67		1	3	1	1	1

General John M. Schofield, headquarters Governor's Island, New York Harbor, taken from Adjutant-General's Office, 1888.

PRESENT.													ABSENT.			AGGREGATE.													
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military store-keepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regiment staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.	
5	5	1	8							1						16	29	45								29	16	45	
		2						1			5		1	1	12	219	22	241					3	2	3	25	219	244	
		1									2				3	72	6	78					3	3	3	9	72	81	
										1	1				2	38	4	42					1	1	1	5	38	43	
									1		2				4	69	7	76					2	2	2	9	69	78	
															2	41	3	44			1			1	1	4	41	45	
								1			4		1	1	6	200	14	214					5	5	5	19	200	219	
1		1								1	3				6	111	12	123					3	3	3	15	111	126	
		1							1						2	42	4	46			1	1		2	2	6	42	48	
		1								1	2				3	70	7	77					1	1	1	8	70	78	
		1								1	2				3	70	7	77					3	3	3	10	70	80	
		1									1				2	45	4	49								4	45	49	
		1								1	1				3	60	6	75			1	1		2	2	8	60	77	
		1						1	1		3		1	1	9	213	17	230			2	1		3	3	20	213	233	
											1				2	41	3	44								3	41	44	
		1									2				1	71	4	75					3	3	3	7	71	78	
		2						1			3		1	1	6	178	14	192		1	1			4	4	18	178	196	
		1									2				4	67	7	74								7	67	74	
		1							1		1				6	104	9	113			2	3		5	5	14	104	118	
		2						1			5		1	1	13	261	23	284		1	1	5		7	7	30	261	291	
1	2							1		2	5				18	230	29	259								29	230	259	
										1	2				4	98	7	105					2	2	2	9	98	107	
		1									1	2			2	75	6	81					4	4	4	10	75	85	
		2							1		4		1	1	7	168	16	184		1			5	6	6	22	168	190	
		2									1	2			4	76	9	85					2	2	2	11	76	87	
1	1										1	1			2	39	6	45					1	1	1	7	39	46	
		1									1	1			4	124	7	131			1			1	1	8	124	132	
8	7	29	8					6	5	13	57		6	6	130	2,807	282	3,089			3	10	51		61	61	340	2,807	3,153

REPORT OF THE SECRETARY OF WAR.

D 1.—Position and distribution of troops in the Division of the Missouri, commanded by file in the Adjutant-

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.	PRESENT.				
				Regiments.	General officers.	Military secretary.	Adjutant-General's Department.	Inspectors-General.
			Number of companies.					
DEPARTMENT OF TEXAS.				Divis'n staff.	1	2	1	1
Headquarters.....	San Antonio, Tex ..	Brig. Gen. D. S. Stanley ..	Department staff.	1	2	1	1	
San Antonio, Tex.....	.....	Col. C. H. Smith, 19th Inf.	8	3d Cav., 3d Art., and 19th Inf.				
Fort Bliss, Tex	Near El Paso.....	Capt. E. P. Ewers, 5th Inf.	2	5th Inf.				
Fort Brown, Tex	Brownsville.....	Maj. C. H. Carlton, 3d Cav.	3	3d Cav. and 5th Inf.				
Fort Clark, Tex.....	Brackettville.....	Col. A. G. Brackett, 3d Cav.	9	3d Cav. and 19th Inf.				
Fort Concho, Tex....	Near San Angelo....	Capt. G. F. Towle, 19th Inf.	1	19th Inf.				
Fort Davis, Tex.....	22 miles from Marfa.	Lieut. Col. M. A. Cochran, 5th Inf.	2	5th Inf.				
Fort Hancock, Tex ..	Opposite San Ignacio, Mexico.	Capt. T. H. Logan, 5th Inf.	1	do				
Fort McIntosh, Tex ..	Laredo.....	M. J. S. B. M. Young, 3d Cav.	3	3d Cav. and 5th Inf.				
Fort Ringgold, Tex ..	Rio Grande City	Lieut. Col. D. R. Clendenin, 3d Cav.	3	do				
Camp Pena Colorado, Tex.	Near Marathon.....	First Lieut. G. H. Morgan, 3d Cav.	1	2d Cav.				
Total .....	.....	.....	33		1	2	1	1
DEPARTMENT OF DAKOTA.								
Headquarters.....	Saint Paul, Minn	Brig. Gen. T. H. Ruger ..	Department staff.	1	1	1		
Fort Snelling, Minn..	5 miles above Saint Paul.	Col. E. C. Mason, 3d Inf.	6	4th Art. and 3d Inf.				
Fort Abraham Lincoln, Dak.	Near Bismarck.....	Capt. Francis Clarke, 22d Inf.	2	12th and 22d Inf.				
Fort Bennett, Dak ...	28 miles northwest of Pierre.	Capt. J. H. Hurst, 12th Inf.	1	12th Inf.				
Fort Buford, Dak ...	75 miles north of Glendive, Mont.	Col. R. E. A. Crofton, 15th Inf.	6	1st Cav. and 15th Inf.				
Fort Meade, Dak	14 miles from Deadwood.	Lieut. Col. J. K. Mizner, 8th Cav.	10	8th Cav. and 3d Inf.				
Fort Pembina, Dak ..	Near Pembina	Capt. Chambers McKibbin, 15th Inf.	2	15th Inf.				
Fort Randall, Dak ...	45 miles from Springfield.	Maj. H. A. Theaker, 15th Inf.	4	do				
Fort Sisseton, Dak...	23 miles from Webster.	Capt. Joseph Hale, 3d Inf.	1	3d Inf.				
Fort Sully, Dak.....	25 miles north of Pierre.	Maj. Wm. H. Penrose, 12th Inf.	4	12th Inf.				
Fort Totton, Dak	At Devil's Lake.....	Lieut. Col. J. S. Conrad, 22d Inf.	2	22d Inf.				
Fort Yates, Dak	60 miles south of Bismarck.	Col. E. F. Townsend, 12th Inf.	4	12th Inf.				
Fort Assiniboine, Mont.	196 miles northeast of Helena.	Col. E. S. Otis, 20th Inf.	9	1st Cav. and 20th Inf.				
Fort Custer, Mont ...	30 miles southeast of Custer Station.	Col. N. A. M. Dudley, 1st Cav.	7	1st Cav. and 23d Inf.				
Fort Keogh, Mont ...	Near Miles City.....	Col. P. T. Swaine, 22d Inf.	9	8th Cav. and 22d Inf.				

Major-General George Crook, headquarters Chicago, Ill., taken from the latest returns on General's Office, 1888.

PRESENT.														ABSENT.	AGGREGATE													
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military stores-keepers.	Colonels.	Lieutenant-colonels.	Major.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and reg'tal staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	14	30								14	16	30
1	1	1	5	1								1				16	15	31								15	16	31
		3					1				7	1	1	18	433	26	459	1	1	3				5	5	31	433	464
		1									2	1	1	4	108	9	117	1						1	1	10	108	118
		1							1		3			4	165	9	174			2		2	2	2	11	165	176	
		3		1	1	1	1				8	1	1	14	491	30	521	1	1	4			6	6	36	491	527	
											1			2	50	3	53								3	50	53	
		1						1			1			3	101	6	107			1	1		2	2	8	101	109	
											1			2	51	3	5								3	51	54	
		2						2	2					4	135	10	145			1	2		3	3	13	135	148	
		1						1			2			5	147	9	156			1	1		2	2	11	147	158	
		1												1	52	2	54			1	1		2	2	4	52	56	
1	1	14	5	1	1	1	2	3	3	28	3	3	3	52	1,749	122	1,871	3	6	14			23	23	145	1,749	1,894	
3	1	1	5	1				1	1	1	1			1	16	18	34									18	16	34
		2			1	1	1	5		1	1	1	11	298	23	321			1	1		2	2	25	218	323		
		1									2			2	87	5	92				2		2	2	7	87	94	
											1			1	55	2	57						1	1	3	55	58	
		1		1				5		1	1	7	305	17	322	1				5		7	7	24	305	329		
		2		1		1	2	7		1	1	12	520	27	547		1	3	8		12	12	39	520	559			
		1						2					3	88	6	94				1		1	1	7	88	95		
		1						1	4				5	168	11	179			3		3	3	14	168	182			
		1									1			2	43	4	47								4	43	47	
		1						1	3				6	173	11	184			1	2		3	3	14	173	187		
								1	1				3	84	5	89	2		1	1		4	4	9	84	93		
		1		1				3		1	1	8	160	15	175				1			1	1	16	160	176		
		2		1				2	6		1	1	13	418	27	445			3	5		8	8	35	418	453		
		1						1	5		1	1	10	408	21	429			2	4		6	6	27	408	435		
		1					1	1	9		1	1	12	446	26	472	1				6		7	7	83	446	479	

D 2.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.						
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.	Bureau of Military Justice.	
DEPARTMENT OF DAKOTA—cont'd.											
Fort Maginnis, Mont.	110 miles northwest of Custer Station.	Lieut. Col. Leslie Smith, 20th Inf.	2	1st Cav. and 20th Inf.							
Fort Missoula, Mont.	Near Missoula	Col. G. L. Andrews, 25th Inf.	4	25th Inf.							
Fort Shaw, Mont.....	78 miles north of Helena.	Lieut. Col. J. J. Van Horn, 25th Inf.	4	25th Inf.							
Camp Poplar River, Mont.	Poplar Creek Agency	Capt. Loyd Wheaton, 20th Inf.	2	20th Inf.							
Camp Sheridan, Wyo.	Yellowstone National Park.	Capt. Moses Harris, 1st Cav.	1	1st Cav.							
En route.....	To Forts Buford and Yates, Dak.	Maj. J. A. Wilcox, 8th Cav.	4	8th Cav.							
Total			34		1		1	1			
DEPARTMENT OF THE MISSOURI.											
Headquarters	Fort Leavenworth, Kans.	Brig. Gen. Wesley Merritt.		Department staff.	1		2	1			
Fort Hays, Kans.....	Near Hays City	Col. J. E. Yard, 18th Inf.	3	18th Inf.							
Fort Leavenworth, Kans.		Col. A. McD. McCook, 6th Inf.	10	1st, 5th, 6th, and 9th Cav.; 2d Art.; 6th, 13th, 14th, & 18th Inf.							
Fort Leavenworth Military Prison, Kans.	At Fort Leavenworth	Capt. J. W. Pope, Q. M. Dept.		Pris'n guard.							
Fort Riley, Kans.	Near Junction City ..	Col. J. W. Forsyth, 7th Cav.	8	7th Cav.							
Fort Gibson, Ind. Ter.	8 miles from Muscogee.	Capt. H. H. Adams, 18th Inf.	2	18th Inf.							
Fort Reno, Ind. Ter. .	Near Cheyenne Agency.	Col. J. F. Wade, 5th Cav.	6	5th Cav. and 13th Inf.							
Fort Sill, Ind. Ter.....	65 miles north of Henrietta, Tex.	Lieut. Col. J. G. Tilford, 7th Cav.	7	5th and 7th Cav. and 13th Inf.							
Fort Supply, Ind. Ter.	15 miles south of Woodward.	Col. R. S. La Motte, 13th Inf.	6	5th Cav. and 13th Inf.							
Fort Elliott, Tex.	Near Mobeetie	Maj. J. J. Upham, 5th Cav.	4	do							
Fort Crawford, Colo.	8 miles from Montrose.	Capt. J. A. P. Hampson, 10th Inf.	2	10th Inf.							
Fort Lewis, Colo.....	12 miles from Durango.	Capt. J. W. Powell, 6th Inf.	8	6th Cav. and 6th Inf.							
Fort Lyon, Colo.....	Near West Las Animas.	Maj. H. C. Cook, 13th Inf.	5	10th, 13th, & 18th Inf.							
Post near Denver, Colo.		Maj. G. K. Brady, 18th Inf.	2	18th Inf.							
Fort Sheridan, Ill.....	Highwood.....	Maj. W. J. Lyster, 6th Inf.	2	6th Inf.							
Total			65		1		2	1			

Division of the Missouri, etc.—Continued.

PRESENT.															ABSENT.							AGGREGATE.						
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military store-keepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regimental staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	3	92	7	99	1	1	1	1	1	1	1	8	92	100
1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	6	213	13	226	2	2	2	2	4	4	17	213	230	
1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	7	189	11	200	2	2	2	2	3	3	14	189	203	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	96	5	101	1	1	1	1	2	2	7	96	103	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	62	3	65	1	1	1	1	3	3	8	62	65	
1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	5	190	9	199	1	1	1	1	4	4	13	190	203	
3	1	20	5	1	5	6	7	10	68	7	8	122	4,111	266	4,377	4	3	17	47	71	71	337	4,111	4,448				
3	2	1	5	1	1	1	1	1	1	1	1	1	1	1	4	143	10	153	1	1	1	2	3	3	13	143	156	
2	1	1	1	1	1	1	1	1	1	1	10	1	1	1	52	550	70	620	1	1	1	4	6	6	76	550	626	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	113	8	121	1	1	1	2	3	3	8	113	121	
1	2	1	1	1	1	1	1	1	1	1	6	1	1	12	449	27	476	4	4	4	8	8	35	449	484			
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	99	5	104	1	1	1	3	3	8	99	107		
1	1	1	1	1	1	1	1	1	1	1	6	1	1	9	357	20	377	1	1	3	4	4	24	357	381			
1	1	1	1	1	1	1	1	1	1	1	7	1	1	8	327	18	345	6	6	6	6	6	24	327	351			
1	1	1	1	1	1	1	1	1	1	1	4	1	1	12	331	20	351	1	2	3	3	23	331	354				
1	1	1	1	1	1	1	1	1	1	1	4	1	1	6	210	13	223	2	2	2	2	2	15	210	225			
1	1	1	1	1	1	1	1	1	1	1	2	1	1	4	83	7	90	3	4	4	7	7	25	83	90			
1	1	1	1	1	1	1	1	1	1	1	5	1	1	12	306	18	324	3	4	7	7	25	306	331				
1	1	1	1	1	1	1	1	1	1	1	4	1	1	7	203	13	216	1	3	4	4	17	203	220				
1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	100	6	106	1	2	3	3	9	100	109				
2	1	1	1	1	1	1	1	1	1	1	2	1	1	4	93	9	101	1	1	1	1	8	93	101				
5	2	17	5	1	6	5	1	9	55	5	5	140	3,380	261	3,641	1	4	13	31	49	49	310	3,380	3,690				

D 2.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.					
			Number of companies.	Regiment.	General officers.	Military secretary.	Aides de camp.	Adjutant-General's Department.	Inspector-general.	Bureau of Military Justice.
DEPARTMENT OF THE PLATTE.										
Headquarters	Omaha, Nebr.	Brig. Gen. J. R. Brooke	...	Department staff.	1	...	2	1	...	...
Fort Omaha, Nebr...	Near Omaha	Col. Frank Wheaton, 2d Inf.	10	2d Inf. ....	...				
Fort Sidney, Nebr...	Near Sidney Station.	Col. H. A. Morrow, 21st Inf.	5	21st Inf. ....	...				
Fort Niobrara, Nebr.	Near Valentine	Col. A. V. Kautz, 8th Inf.	8	9th Cav. & 8th Inf.	...					
Fort Robinson, Nebr.	25 miles west of Chadron.	Col. Edward Hatch, 9th Cav.	8	do .....	...				
Fort Douglas, Utah..	Near Salt Lake City.	Col. M. M. Blunt, 16th Inf.	8	5th Art., 16th & 21st Inf.	...					
Fort Du Chesne, Utah	Near the Uintah Agency.	Maj. A. R. Chaffee, 9th Cav.	6	9th Cav & 16th Inf.	...					
Fort Bridger, Wyo..	10 miles from Carter's Station.	Maj. J. N. Andrews, 21st Inf.	5	17th & 21st Inf.	...					
Fort Laramie, Wyo..	28 miles north of Bordeaux.	Col. H. C. Merriam, 7th Inf.	5	7th Inf. ....	...				
Fort McKinney, Wyo	On Clear Fork Creek.	Maj. J. F. Randlett, 9th Cav.	4	9th Cav., 7th & 21st Inf.	...					
Fort D. A. Russell, Wyo.	Near Cheyenne	Col. H. R. Mizner, 17th Inf.	8	17th Inf. ....	...				
Fort Washakie, Wyo	Near Shoshone Agency.	Maj. A. T. Smith, 7th Inf.	3	9th Cav. & 7th Inf.	...					
Camp Pilot Butte, Wyo.	Near Rock Springs..	Capt. H. B. Freeman, 7th Inf.	2	7th Inf. ....	...				
Total			72		1	...	2	1	...	...
Grand total Division of the Missouri			254		4	...	7	4	1	...

Division of the Missouri, etc.—Continued.

PRESENT.														ABSENT.				AGGREGATE.		
Quartermaster's Department. Subsistence Department.														General and staff officers. Field and regimental staff officers. Captains. Subalterns. Enlisted men. Total commissioned. Aggregate.				Commissioned officers. Enlisted men. Aggregate.		
Medical Department. Pay Department. Corps of Engineers. Ordnance Department. Post chaplains. Military store-keepers. Colonels. Lieutenant-colonels. Majors. Captains. Regimental chaplains. Regimental adjutants. Regimental quartermasters. Subalterns. Enlisted men. Total commissioned.														Aggregate.			Aggregate.			
3	2	1	4	1	1	1	1	1	1	1	1	1	1	15	19	34	19	15	34	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	430	30	460	37	430	467	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	219	17	236	20	219	239	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	386	27	413	31	386	417	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	421	25	446	30	421	451	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	375	28	403	30	375	405	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	298	17	315	20	298	318	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	195	13	208	18	195	213	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	213	16	229	21	213	234	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	192	9	201	15	192	207	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	326	29	355	31	326	357	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	146	10	156	11	146	157	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	74	6	80	7	74	81	
3	2	16	4	1	1	3	1	7	5	9	62	1	7	3,290	246	3,536	290	3,290	3,580	
12	6	67	19	3	3	15	1	20	16	31	213	1	22	12,530	895	13,425	1,082	12,530	13,612	

E.—Position and distribution of troops in the Division of the Pacific, commanded by Major-file in the Adjutant-

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.						
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.	Bureau of Military Justice.	
DEPARTMENT OF CALIFORNIA.											
Headquarters	San Francisco, Cal..	Maj. Gen. O. O. Howard.	...	Division and department staff.	1		2	1			
Alcatraz Island, Cal.	do	Maj. W. L. Haskin, 1st Art.	2	1st Art							
Angel Island, Cal.	do	Col. W. R. Shafter, 1st Inf.	4	1st Inf.....							
Benicia Barracks, Cal.	Benicia	Lieut. Col. C. G. Bartlett, 1st Inf.	2	1st Inf.....							
Presidio of San Francisco, Cal.	San Francisco Harbor.	Lieut. Col. W. M. Graham, 1st Art.	11	2d Cav., 1st Art., & 1st Inf.							
Fort Bidwell, Cal.	In Surprise Valley..	Maj. D. S. Gordon, 2d Cav.	2	2d Cav.....							
Fort Gaston, Cal.	In Hoopa Valley....	Capt. W. E. Dougherty, 1st Inf.	1	1st Inf.....							
Fort Mason, Cal.	San Francisco Harbor.	Capt. J. A. Darling, 1st Art.	1	1st Art							
Fort McDermit, Nev.	78 miles north of Winnemucca.	Capt. R. G. Armstrong, 1st Inf.	1	1st Inf.....							
Total .....	.....	.....	24	.....	1		2	1			
DEPARTMENT OF ARIZONA.											
Headquarters	Los Angeles, Cal ...	Brig. Gen. N. A. Miles.	...	Department staff.	1		2				
Fort Apache, Ariz....	90 miles south of Holbrook.	Lieut. Col. G. G. Hunt, 10th Cav.	3	10th Cav. & 24th Inf.							
Fort Bowie, Ariz....	Bowie Station.....	Maj. E. B. Beaumont, 4th Cav.	3	4th Cav.....							
Fort Grant, Ariz....	27 miles north of Willcox.	Lieut. Col. E. P. Pearson, 24th Inf.	5	10th Cav. & 24th Inf.							
Fort Huachuca, Ariz.	Near Huachuca Station.	Col. C. E. Compton, 4th Cav.	5	4th Cav.....							
Fort Lowell, Ariz....	Near Tucson.....	Maj. H. E. Noyes, 4th Cav.	3	do							
Fort McDowell, Ariz	12 miles northeast of Phoenix.	Capt. Alex'r Rodgers, 4th Cav.	2	4th Cav. & 9th Inf.							
Fort Mojave, Ariz....	Near Mojave City ..	Capt. A. H. Bowman, 9th Inf.	1	9th Inf.....							
Fort Thomas, Ariz...	64 miles northwest of Bowie Station.	Maj. Fred'k Van Vliet, 10th Cav.	3	10th Cav. & 24th Inf.							
Fort Verde, Ariz....	38 miles northeast of Prescott.	Maj. C. B. McLellan, 10th Cav.	1	10th Cav.....							
Whipple Barracks, Ariz.	At Prescott	Lieut. Col. G. M. Brayton, 9th Inf.	5	9th Inf.....							
San Carlos, Ariz....	.....	Lieut. Col. Simon Snyder, 10th Inf.	5	10th Cav., 9th & 24th Inf.							
Santa Fé, N. Mex....	Headquarters District of New Mexico.	Col. B. H. Grierson, 10th Cav.	...	Headquarters 10th Cav.							
Fort Bayard, N. Mex.	Near Silver City....	Col. Z. R. Bliss, 24th Inf.	6	10th Cav. & 24th Inf.							
Fort Marcy, N. Mex.	Santa Fé.....	Capt. Gregory Barrett, 10th Inf.	1	10th Inf.....							
Fort Stanton, N. Mex	9 miles from Lincoln.	Lieut. Col. A. P. Morrow, 6th Cav.	3	6th Cav. & 10th Inf.							
Fort Union, N. Mex.	8 miles from Watrous	Col. Henry Douglass, 10th Inf.	5	do							

General O. O. Howard, headquarters San Francisco, Cal., taken from the latest returns on General's Office, 1888.

PRESENT.															ABSENT.					AGGREGATE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Quartermaster's Department.		Subsistence Department.		Medical Department.		Pay Department.		Corps of Engineers.		Ordnance Department.		Post chaplains.		Military store-keepers.		Colonels.		Lieutenant-colonels.		Majors.		Captains.		Regimental chaplains.		Regimental adjutants.		Regimental quartermasters.		Subalterns.		Enlisted men.		Total commissioned.		Aggregate.		General and staff officers.		Field and reg'tal staff officers.		Captains.		Subalterns.		Enlisted men.		Total commissioned.		Aggregate.		Commissioned officers.		Enlisted men.		Aggregate.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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REPORT OF THE SECRETARY OF WAR.

E.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICER.	GARRISONS.		PRESENT.					
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.	Bureau of Military Justice.
DEPARTMENT OF ARIZONA—cont'd.										
Fort Wingate, N Mex	Near Wingate Station.	Col. E. A. Carr, 6th Cav.	5	6th Cav						
San Diego Barracks, Cal.	San Diego	Maj. Daingerfield Parker, 9th Inf.	1	9th Inf.						
Total			57		1		2			
DEPARTMENT OF THE COLUMBIA.										
Headquarters	Vancouver Barracks, Wash. Ter.	Brig. Gen. John Gibbon		Department staff.	1		2	1		
Boisé Barracks, Idaho	Boisé City	Lieut. Col. John Green, 2d Cav.	2	2d Cav. and 4th Inf.						
Fort Sherman, Idaho.	11 miles from Rathdrum.	Col. W. P. Carlin, 4th Inf.	5	do						
Fort Spokane, Wash. Ter.	Near Spokane Falls.	Maj. J. F. Kent, 4th Inf.	6	do						
Fort Townsend, Wash. Ter.	Port Townsend	Capt. A. H. Bainbridge, 14th Inf.	1	14th Inf.						
Fort Walla Walla, Wash. Ter.	Walla Walla	Col. N. B. Sweitzer, 2d Cav.	5	2d Cav.						
Vancouver Barracks, Wash. Ter.	Vancouver	Col. T. M. Anderson, 14th Inf.	8	1st Art. and 14th Inf.						
Fort Klamath, Oregon	Near Lake Klamath	Capt. G. S. Carpenter, 14th Inf.	1	14th Inf.						
Total			28		1		2	1		
Grand total			109		3		6	2		

Division of the Pacific, etc.—Continued.

PRESENT.																		ABSENT.						AGGREGATE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Quartermaster's Department.		Subsistence Department.		Medical Department.		Pay Department.		Corps of Engineers.		Ordnance Department.		Post chaplains.		Military store-keepers.		Colonels.		Lieutenant-colonels.		Majors.		Captains.		Regimental chaplains.		Regimental adjutants.		Regimental quartermasters.		Subalterns.		Enlisted men.		Total commissioned.		Aggregate.		General and staff officers.		Field and reg'tal staff officers.		Captains.		Subalterns.		Enlisted men.		Total commissioned.		Aggregate.		Commissioned officers.		Enlisted men.		Aggregate.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
4	2	20	4	1	5	6	7	37	2	6	6	81	3,173	184	3,357	...	4	21	35	...	60	60	244	3,173	3,417	

F.—*Geographical divisions, departments, and posts, with distribution of troops, post-offices, telegraph stations, and nearest railroad stations or boat landings.*

DIVISION OF THE ATLANTIC.

Maj. Gen. JOHN M. SCHOFIELD, comdg.—Hdqrs. Governor's Island, New York Harbor. Embraces the Department of the East.

DEPARTMENT OF THE EAST.

Maj. Gen. JOHN M. SCHOFIELD, comdg.—Hdqrs. Governor's Island, New York Harbor.

Geographical limits.—The New England States, States of New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Louisiana, Arkansas, Mississippi, Alabama, Kentucky, Tennessee, Ohio, Michigan, Wisconsin, Indiana, and the District of Columbia.

DIVISION OF THE MISSOURI.

Maj. Gen. GEORGE CROOK, comdg.—Hdqrs. Chicago, Ill. Embraces the Departments of the Platte, Dakota, Missouri, and Texas.

DEPARTMENT OF THE PLATTE.

Brig. Gen. JOHN R. BROOKE, comdg.—Hdqrs. Omaha, Nebr.

Geographical limits.—States of Iowa and Nebraska; Territories of Utah and Wyoming (excepting the post of Camp Sheridan, Wyo.), and so much of the Territory of Idaho as lies east of a line formed by the extension of the western boundary of Utah to the northeastern boundary of Idaho.

DEPARTMENT OF DAKOTA.

Brig. Gen. THOMAS H. RUGER, comdg.—Hdqrs. Saint Paul, Minn.

Geographical limits.—State of Minnesota and the Territories of Dakota and Montana, and the post of Camp Sheridan, Wyo.

DEPARTMENT OF THE MISSOURI.

Brig. Gen. WESLEY MERRITT, comdg.—Hdqrs. Fort Leavenworth, Kans.

Geographical limits.—States of Missouri, Kansas, Illinois, and Colorado, the Indian Territory, and the post of Fort Elliott, Tex.

DEPARTMENT OF TEXAS.

Brig. Gen. DAVID S. STANLEY, comdg.—Hdqrs. San Antonio, Tex.

Geographical limits.—State of Texas, excepting the post of Fort Elliott.

DIVISION OF THE PACIFIC.

Maj. Gen. OLIVER O. HOWARD, comdg.—Hdqrs. San Francisco, Cal. Embraces the Departments of California, Arizona, and the Columbia.

DEPARTMENT OF CALIFORNIA.

Maj. Gen. OLIVER O. HOWARD, comdg.—Hdqrs. San Francisco, Cal.

Geographical limits.—States of California (excepting that portion south of the 35th parallel) and Nevada.

DEPARTMENT OF ARIZONA.

Brig. Gen. NELSON A. MILES, comdg.—Hdqrs. Los Angeles, Cal.

Geographical limits.—Territories of Arizona and New Mexico, and that portion of California south of the 35th parallel.

DEPARTMENT OF THE COLUMBIA.

• Brig. Gen. JOHN GIBBON, comdg.—Hdqrs. Vancouver Barracks, Wash. T.

Geographical limits.—State of Oregon, and the Territories of Washington, Idaho, and Alaska, excepting so much of Idaho as is embraced in the Department of the Platte.

POSTS.

[Those not garrisoned are indicated thus *.]

- Abraham Lincoln, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. same; boat landing at post and buckboard daily from Mandan, on N. P. R. R., dist. 6½ m.
- Adams, Fort, R. I.* (Dept. East.)—P. O. and tel. stn. Newport, R. I.; boat from Newport, dist. 3 m.
- Alcatraz Island, Cal.* (Dept. Cal.)—P. O. same; tel. and R. R. stn. San Francisco, Cal., dist. 4 m.; Govt. steamer daily (except Sunday) to post.
- Angel Island, Cal.* (Dept. Cal.)—P. O. and tel. stn. same; R. R. stn. San Francisco, Cal., dist. 7 m.; Govt. steamer daily (except Sunday) to post.
- Apache, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; buckboard daily (except Sunday) from Holbrook, on A. and P. R. R., dist. 90 m.
- Assiniboine, Fort, Mont.* (Dept. Dak.)—P. O., tel. and R. R. (St. P., M. and M.) stn. same.
- Barrancas, Fort, Fla.* (Dept. East.)—P. O. Warrington, Fla.; tel. stn. Pensacola navy-yard, Fla.; R. R. stn. at Pensacola, Fla., dist. 9 m.; special boat to post.
- Bayard, Fort, N. Mex.* (Dept. Ariz.)—P. O. same; tel. stn. Deming, N. Mex.; daily stage from Silver City, on S. C., D. and P. R. R., dist. 9 m.
- Benicia Barracks, Cal.* (Dept. Cal.)—P. O., tel. stn., and boat landing Benicia, Cal., dist. 1 m.; R. R. stn. Army Point, on C. P. R. R., dist. 4 m.
- Bennett, Fort, Dak.* (Dept. Dak.)—P. O. same; tel. stn. Fort Sully, Dak., dist. 7 m.; tri-weekly stage from Pierre, Dak., on C. and N. W. R. R., dist. 28 m.
- Bidwell, Fort, Cal.* (Dept. Cal.)—P. O. and tel. stn. same; daily stage (except Tuesday) from Reno, Nev., on C. P. R. R., dist. 193 m.
- Bliss, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. (A., T. and S. F.; S. P.; T. and P.; G., H. and S. A.; and Mexican Central R. R's), El Paso, Tex., dist. 1½ m.
- Boisé Barracks, Idaho,* (Dept. Columbia.)—P. O., tel. and R. R. (O. S. L.) stn. Boise City, Idaho, dist. 2 m.
- Bowie, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily buckboard from Bowie Station, Ariz., on S. P. R. R., dist. 13 m.
- Brady, Fort, Mich.* (Dept. East.)—P. O., tel. and R. R. (D., S. S. and A.) stn. Sault Ste. Marie, Mich.; boats land at post in summer.
- Bridger, Fort, Wyo.* (Dept. Platte.)—P. O. and tel. stn. same (via Carter, Wyo.); daily buckboard from Carter Station, on U. P. R. R., dist. 10 m.
- Brown, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. (R. G. R. R.) Brownsville, Tex.; reached by Morgan steamers about every ten days from Morgan City or Galveston, or by buckboard, via Ringgold, from Pena Station, on M. N. R. R.
- Buford, Fort, Dak.* (Dept. Dak.)—P. O., tel. and R. R. (St. P., M. and M.) stn. same.
- * *Canby, Fort, Wash.* (Dept. Columbia.)—P. O. and tel. stn. Astoria, Oreg.; daily steamer from R. R. stn., Portland, Oreg., to Astoria, dist. 98 m, and thence by steam tug daily (except Sunday) to post, dist. 14 m.
- * *Carroll, Fort, Md.*—P. O. and tel. stn. Baltimore, Md., dist. 6½ m. by water from Light st. wharf.
- * *Caswell, Fort, N. C.*—P. O. and tel. stn. Southport, N. C., dist. 2 m.; steamer daily from Wilmington to Southport, dist. 22 m.
- Clark, Fort, Tex.* (Dept. Tex.) P. O. Brackettville, Tex.; tel. stn. (telephone to post) Spofford Junction, Tex.; daily stage from Spofford Junction, on G., H. and S. A. R. R., dist. 9 m.
- * *Clark's Point, Mass., Fort at.*—P. O. and tel. stn. New Bedford, Mass.; private conveyance from New Bedford, dist. 4 m.
- * *Clinch, Fort, Fla.*—P. O., tel. and R. R. stn. Fernandina, Fla., dist. 3 m.
- Columbus Barracks, Ohio.* (See Recruiting Depots, page 5.)
- Columbus, Fort, N. Y. H.* (Dept. East.)—P. O. and tel. stn. Governor's Island, N. Y.; Govt. steamer from New York City, dist. 1½ m.
- Concho, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. San Angelo, Tex., on G. C. and S. F. R. R., dist. 1 m.
- * *Constitution, Fort, N. H.*—P. O. New Castle, N. H.; tel. stn. Portsmouth, N. H.; stage or steamer from Portsmouth, dist. 3 m.
- Crawford, Fort, Colo.* (Dept. Mo.)—P. O. Uncompahgre, Colo.; tel. and R. R. (D. and R. G.) stn. at post.

- **Cummings, Fort, N. Mex.* (Dept. Ariz.)—P. O. same; tel. stn. Deming, N. Mex.; R. R. stn. Florida, N. Mex., on A., T. and S. F. R. R., dist. 5 m.
- **Custer, Fort, Mont.* (Dept. Dak.)—P. O. and tel. stn. same; daily stage from Custer Station, on N. P. R. R., dist. 32 m.
- **D. A. Russell, Fort, Wyo.* (Dept. Platte.)—P. O. and tel. stn. same; R. R. stn. Cheyenne, Wyo., on U. P. R. R., dist. 3 m.
- Dauids Island, N. Y.* (See Recruiting Depots, page 5.)
- **Davis, Fort, Tex.* (Dept. Tex.)—P. O. and tel. stn. same; daily stage from Marfa, on G., H. and S. A. R. R., dist. 22 m.
- **Delaware, Fort, Del.*—P. O. and tel. stn. Delaware City, Del.; daily steamer from Philadelphia to Delaware City, dist. 1½ m. from post.
- Denver, Post near, Colo.* (Dept. Mo.)—P. O., tel. and R. R. stn. Denver, Colo.
- **Douglas, Fort, Utah* (Dept. Platte.)—P. O., tel. and R. R. stn. Salt Lake City, Utah; dist. 3 m.
- Du Chesne, Fort, Utah* (Dept. Platte.)—P. O. and tel. stn. same; R. R. stn. Price Station, D. and R. G. W. R. R., dist. 58 m; private conveyance to post.
- **Dutch Island, R. I., Fort on.*—P. O. Jamestown, R. I.; tel. stn. Newport, R. I.; steam ferry from Newport to Jamestown, and private boat thence to post, dist. 8 m.
- **Elliott, Fort, Tex.* (Dept. Mo.)—P. O. at post via Miami, Tex.; tel. stn. at post; daily stage from New Clarendon, Tex., on Ft. W. and D. C. R. R., dist. 55 m., and from Miami, Tex., on S. K. R. R., dist. 19 m.
- **Finn's Point, N. J., Battery at.*—P. O. and tel. stn. Salem, N. J., dist. 6 m.
- **Foote, Fort, Md.*—P. O. same; tel. stn. Alexandria, Va.; steamer from Washington, D. C., dist. 9 m.
- **Gaines, Fort, Ala.*—P. O., tel. and R. R. stn. Mobile, Ala.; boat from Mobile, dist. 30 m.
- Gaston, Fort, Cal.* (Dept. Cal.)—P. O. Hoopa Valley, Cal.; tel. stn. Arcata, Cal.; bi-weekly steamers from San Francisco to Arcata, dist. 284 m.; thence by saddle animal (mountain trail), dist. 40 m.
- Gibson, Fort, Ind. T.* (Dept. Mo.)—P. O. same; tel. stn. (telephone to post) Gibson Station; private conveyance from Gibson Station, on M. P. R. R., dist. 7 m.
- **Gorges, Fort, Me.*—P. O. and tel. stn. Portland, Me., dist. 2 m.
- Grant, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily stage (except Sunday) from Willcox, on S. P. R. R., dist. 27 m.
- **Griswold, Fort, Conn.*—P. O. Groton Banks, Conn.; tel. stn. New London, Conn.; ferry from New London, dist. 1 m.
- Hamilton, Fort, N. Y.* (Dept. East.)—P. O. and tel. stn. same; city railroad from Brooklyn, dist. 6 m.
- Hancock, Fort, Tex.* (Dept. Tex.)—P. O. same; tel. and R. R. stn. Fort Hancock Station, on S. and T. P. R. R., dist. 1½ m.; Govt. buckboard to post.
- Hays, Fort, Kans.* (Dept. Mo.)—P. O., tel. and R. R. stn. (U. P. R. R.) Hays City, Kans.
- Huachuca, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily buckboard from Huachuca Siding, on N. Mex. and A. R. R., dist. 7 m.
- **Independence, Fort, Mass.*—P. O. and tel. stn. Boston, Mass.; Govt. tug from Boston, dist. 3 m.
- Jackson Barracks, La.* (Dept. East.)—P. O. and R. R. stn. New Orleans, La., dist. 6 m.; tel. stn. Slaughter House, St. Bernard Parish, La.
- Jackson, Fort, La.*—P. O. Neptune, La.; tel. stn. Quarantine, La.; steamer tri-weekly from New Orleans, dist. 73 m.
- Jefferson Barracks, Mo.*—(See Recruiting Depots, p. 5.)
- **Jefferson, Fort, Fla.*—P. O. and tel. stn. Key West, Fla.; boat from Key West, dist. 71 m.
- **Johnston, Fort, N. C.*—P. O. and tel. stn. Southport, N. C.; steamer daily from Wilmington, N. C., dist. 26 m.
- Keogh, Fort, Mont.* (Dept. Dak.)—P. O., tel. and R. R. stn. (N. P. R. R.) same.
- **Key West Barracks, Fla.* (Dept. East.)—P. O., tel. stn., and boat ldg. Key West, Fla.
- Klamath, Fort, Oreg.* (Dept. Columbia.)—P. O. and tel. stn. same; stage from Willow Creek, via Linkville, Cal., on C. and O. R. R., dist. 91 m., and from Ashland, Oreg., on O. and C. R. R., dist. 100 m.
- **Knox, Fort, Me.*—P. O. Prospect Ferry, Me.; tel. stn. Bucksport, Me.; ferry from Bucksport, dist. ½ m.
- **Lafayette, Fort, N. Y. H.*—P. O. and tel. stn. Fort Hamilton, N. Y.; city railroad from Brooklyn, dist. 6 m.
- Laramie, Fort, Wyo.* (Dept. Platte.)—P. O. and tel. stn. same; daily stage from Lusk, on F. E. and M. V. R. R., dist. 45 m., and from Bordeaux, Wyo., on C. and U. P. R. R., dist. 28 m.
- Leavenworth, Fort, Kans.* (Dept. Mo.)—P. O., tel. and R. R. stn. (M. P. R. R. and C. R. I. and P. R. R.) same.

- Leavenworth Military Prison, Kans.* (Dept. Mo.)—P. O., tel. and R. R. stn. same as Fort Leavenworth.
- Lewis, Fort, Colo.* (Dept. Mo.)—P. O. same; tel. stn. (telephone to post) Durango, Colo.; stage from Durango, on D. and R. G. R. R., dist. 12 m.
- Little Rock Barracks, Ark.* (Dept. East.)—P. O., tel. and R. R. stn. Little Rock, Ark.
- **Livingston, Fort, La.*—P. O. Grand Isle, La.; tel. stn. New Orleans, La.; steamer weekly from New Orleans, dist. 95 m.
- Lowell, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. (telephone to post) Tucson, Ariz.; special conveyance from Tucson, on S. P. R. R., dist. 7 m.
- Lyon, Fort, Colo.* (Dept. Mo.)—P. O. same; tel. (telephone to post) and R. R. stn. Las Animas, Colo., on A. T. and S. F. R. R., dist. 7 m.
- Mackinac, Fort, Mich.* (Dept. East.)—P. O. and tel. stn. Mackinac Island, Mich.; boat from R. R. stn. (M. C. R. R. and G. R. and I. R. R.) at Mackinaw City, dist. 11 m., and from St. Ignace, Mich., on D., M. and M. R. R., dist. 5 m.; steamboats from Chicago, Detroit, and other lake ports arrive daily.
- **Macomb, Fort, La.*—P. O. Lee, La., tel. and R. R. stn. Chef Menteur, La., dist. 1½ m.
- **Macon, Fort, N. C.*—P. O. Beaufort, N. C.; tel. and R. R. stn. Morehead City, N. C., dist. 2 m.
- Madison Barracks, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. Sackett's Harbor, N. Y.
- Maginnis, Fort, Mont.* (Dept. Dak.)—P. O. and tel. stn. same; R. R. stn. Custer Station, Mont., on N. P. R. R., dist. 110 m., and Big Sandy, on S. and P. M. and M. R. R., spring wagon, dist. 90 m.
- Marcy, Fort, N. Mex.* (Dept. Ariz.)—P. O., tel. and R. R. stn. (A., T. and S. F. R. R.) Santa Fé, N. Mex.
- **Marion, Fort, Fla.* (Dept. East.)—P. O., tel. and R. R. stn. St. Augustine, Fla.
- Mason, Fort, Cal.* (Dept. Cal.)—P. O. and R. R. stn. San Francisco, Cal., dist. 3 m.; tel. stn. at post.
- **McClary, Fort, Me.*—P. O., tel. and R. R. stn. Kittery Point, Me.
- McDermitt, Fort, Nev.* (Dept. Cal.)—P. O. same; tel. and R. R. stn. Winnemucca, on C. P. R. R., dist. 79 m.; stage daily (except Sunday).
- McDowell, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; daily buckboard from Tempe Junction, on the M. and P. R. R., dist. 25 m.
- McHenry, Fort, Md.* (Dept. East.)—P. O., tel. and R. R. stn. Baltimore, Md.
- McIntosh, Fort, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. Laredo, Tex., dist. 1½ m.
- McKinney, Fort, Wyo.* (Dept. Platte.)—P. O. and tel. stn. same; daily stage from Douglas City, on F. E. and M. V. R. R., dist. 148 m., and from Custer Station, Mont., on N. P. R. R., dist. 161 m.
- Meade, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. same; R. R. stn. Sturgis City, on F. E. and M. V. R. R., dist. 2½ m.
- **Mifflin, Fort Pa.*—P. O. and tel. stn. Philadelphia, Pa.; private conveyance from Philadelphia, dist. 5 m.
- Missoula, Fort, Mont.* (Dept. Dak.)—P. O., tel. and R. R. stn. (N. P. R. R.) Missoula, Mont., dist. 4 m.
- Mojave, Fort, Ariz.* (Dept. Ariz.)—P. O. same; tel. and R. R. stn. The Needles, Cal., on A. and P. R. R., dist. 25 m.
- Monroe, Fort, Va.* (Dept. East.)—P. O. and tel. stn. same; steamboats daily from Baltimore, Washington, Norfolk, and New York, and railroad (C. and O.) from Richmond, Va.
- **Montgomery, Fort, N. Y.*—P. O., tel. and R. R. stn. Rouse's Point, N. Y., dist. 1½ m.
- **Morgan, Fort, Ala.*—P. O. Herndon, Ala.; tel. stn. at post; steamer from Mobile, dist. 30 m.
- **Moultrie, Fort, S. C.*—P. O. Moultrieville, S. C.; tel. and R. R. stn. Charleston, S. C., dist. 5 m.
- Mount Vernon Barracks, Ala.* (Dept. East.)—P. O., tel. and R. R. stn. Mount Vernon, Ala., dist. ½ m.
- Myer, Fort, Va.* (Dept. East.)—P. O. and R. R. stn. Washington, D. C.; telephone to post.
- Newport Barracks, Ky.* (Dept. East.)—P. O., tel. and R. R. stn. Newport, Ky.
- Niagara, Fort, N. Y.* (Dept. East.)—P. O. Youngstown, N. Y.; tel. and R. R. stn. Lewiston, N. Y.; stage from Lewiston, dist. 7 m.
- Niobrara, Fort, Nebr.* (Dept. Platte.)—P. O. same; tel. at post, via Valentine, Nebr.; R. R. stn. Valentine, Nebr., on F. E. and M. V. R. R., dist. ¼ m.
- **Oglethorpe, Fort, Ga.*—P. O., tel. and R. R. stn. Savannah, Ga., dist. 3 m.
- Omaha, Fort, Nebr.* (Dept. Platte.)—P. O. same; tel. (telephone post) and R. R. stn. Omaha, dist. 4 m.
- Ontario, Fort, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. Oswego, N. Y.
- Pembina, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. Pembina, Dak., R. R. stn. St. Vincent, on St. P., M. and M. R. R., dist. 2 m.

- Pena Colorado, Camp, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. Marathon, Tex., on G., H. and S. A. R. R., dist. 4 m.
- **Phoenix, Fort, Mass.*—P. O. and tel. stn. Fairhaven, Mass.
- **Pickens, Fort, Fla.*—P. O. Warrington, Fla.; tel. stn. Pensacola Navy Yard; R. R. stn. at Pensacola, Fla., dist. 10 m.
- **Pike, Fort, La.*—P. O. same; tel. stn. Chef Menteur, La.; R. R. stn. New Orleans (on L. and N. R. R.) to Lake Catherine Station, dist. 28 m., and thence to post by special boat, dist. 7 m.
- Pilot Butte, Camp, Wyo.* (Dept. Platte.)—P. O., tel. and R. R. stn. Rock Springs, Wyo., on U. P. R. R.
- Plattsburgh Barracks, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. Plattsburgh, N. Y.
- **Popham, Fort, Me.*—P. O. Popham Beach, Me.; tel. stn. Bath, Me.; stage or water from Bath, Me., dist. 12 m. by water, 15 m. by land.
- Poplar River, Camp, Mont.* (Dept. Dak.)—P. O., tel. and R. R. stn. Poplar River Station, on St. P., M. and M. R. R.
- Porter, Fort, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. Buffalo, N. Y.
- Preble, Fort, Me.* (Dept. East.)—P. O. and tel. stn. Portland, Me.; special conveyance, by land or water, from Portland, dist. 2½ m.
- Presidio of San Francisco, Cal.* (Dept. Cal.)—P. O. and R. R. stn. San Francisco, Cal., dist. 4½ m.; tel. stn. at post; city railway from San Francisco to post.
- **Pulaski, Fort, Ga.*—P. O. same; R. R. and tel. stn. Savannah, Ga., dist. 14 m.
- Randall, Fort, Dak.* (Dept. Dak.)—P. O. same; tel. and R. R. stn. Armour, Dak., dist. 24 m.; buckboard daily (except Sunday) and tri-weekly stage from Springfield, Dak., on C. M. and S. P. R. R., dist. 45 m.
- Reno, Fort, Ind. T.* (Dept. Mo.)—P. O. and tel. stn. same; stage daily from Oklahoma Station, Ind. T., on S. K. branch A. T. and S. F. R. R., dist. 32 m.
- Riley, Fort, Kans.* (Dept. Mo.)—P. O. same; tel. and R. R. stn. (K. P. and M. K. and T. R. R.'s) Junction City, Kans., dist. 3½ m.
- Ringgold, Fort, Tex.* (Dept. Tex.)—P. O. and tel. stn. Rio Grande City, Tex.; stage from R. R. stn. (R. G. R. R.) at Brownsville, Tex., dist. 117 m., and from Pena, on T. M. R. R., dist. 76 m., and from San Miguel, Mex., on Mex. N. R. R., dist. 23 m.
- Robinson, Fort, Nebr.* (Dept. Platte.)—P. O., tel. and R. R. stn. (F. E. and M. V. R. R.) same.
- San Antonio, Tex.* (Dept. Tex.)—P. O., tel. and R. R. stn. same.
- San Carlos, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; tri-weekly buckboard from R. R. stn., Bowie, on S. P. R. R. (via Fort Thomas), dist. 102 m., and from Willcox, on S. P. R. R., via Forts Grant and Thomas, dist. 106 m., special conveyance.
- San Diego Barracks, Cal.* (Dept. Ariz.)—P. O., tel. and R. R. stn. (C. S. R. R.) and boat ldg. San Diego, Cal.
- **Sandy Hook, N. J., Fort at.*—P. O. New York City; tel., R. R. stn. and stmbt. ldg. Sandy Hook, N. J., dist. 2 m.
- **Scammel, Fort, Me.*—P. O., tel. and R. R. stn. Portland, Me., dist. 2 m.
- Schuyler, Fort, N. Y.* (Dept. East.)—P. O., tel. and R. R. stn. West Chester, N. Y., dist. 3½ m.
- **Selden, Fort, N. Mex.* (Dept. Ariz.)—P. O. and R. R. stn. (A., T. and S. F. R. R.) at post; telegraph stn. Las Cruces, N. Mex.
- **Sewall, Fort, Mass.*—P. O., tel. and R. R. stn. Marblehead, Mass., dist. 1½ m.
- Shaw, Fort, Mont.* (Dept. Dak.)—P. O. and tel. stn. same; daily stage from Ulm, Mont., on M. C. R. R., dist. 17½ m.
- Sheridan, Camp, Wyo.* (Dept. Dak.)—P. O. Mammoth Hot Springs, Wyo.; tel. stn. Mammoth Hot Springs (summer) and Livingston, Mont. (winter; R. R. stn. Cinnabar, Mont. (once a week Oct. 15 to June 1), on Yellowstone Park Line of N. P. R. R., dist. 8 m.; daily stage from Livingston Oct. 15 to June 1.
- Sheridan, Fort, Ill.* (Dept. Mo.)—P. O. Highwood, Ill.; tel. stn. Highland Park, Ill.; R. R. stn. Highwood on C. and N. W. R. R.
- Sherman, Fort, Idaho* (Dept. Columbia.)—P. O. Sherman; tel. and R. R. stn. Coeur d'Alene, Idaho (on branch N. P. R. R.), dist. ½ m.
- **Ship Island, Miss., Fort at.*—P. O., tel. and R. R. stn. (N. O. and M. R. R.), Biloxi, Miss., dist. 15 m.; special boat to post.
- Sidney, Fort, Nebr.* (Dept. Platte.)—P. O., tel. and R. R. stn. Sidney, Nebr., on U. P. R. R.
- Sill, Fort, Ind. T.* (Dept. Mo.)—P. O. and tel. stn. same; stage daily (except Sunday) from Henrietta, Tex., on Ft. W. and D. R. R., dist. 65 m., and from Paul's Valley, on G. C. and S. F. R. R., dist. 80 m. by stage.
- Sisseton, Fort, Dak.* (Dept. Dak.)—P. O. same; tel. and R. R. stn. Webster, Dak., on Hastings and Dakota division of C. M. and St. P. R. R., dist. 2½ m.; stage to post daily (except Sunday); and from Britton, Dak., on C. M. and St. P. R. R., dist. 17 m., and from Burch, on St. P., M. and M. R. R., dist. 21 m.; telephone to post.
- Snelling, Fort, Minn.* (Dept. Dak.)—P. O., tel. and R. R. stn. same.

- Spokane, Fort, Wash. T.* (Dept. Columbia.)—P. O. Miles, Wash. T.; tel. stn. at post; tri-weekly stage from Spokane Falls, on N. P. R. R., dist. 65 m., and from Sprague, on same R. R., dist. 50 m.
- Stanton, Fort, N. Mex.* (Dept. Ariz.)—P. O. and tel. stn. same; stage daily from Carthage, N. Mex., on A., T. and S. F. R. R., dist. 100 m.; via White Oaks and Nogal, dist. 120 m.
- **Stevens, Fort, Oreg.*—P. O. and tel. stn. (telephone to post) Astoria, Oreg.; steamer daily from R. R. stn. Portland, Oreg., to Astoria, dist. 98 m.; from thence by steam-tug daily (except Sunday) to post, dist. 7 m.
- St. Francis Barracks, Fla.* (Dept. East.)—P. O., tel. and R. R. stn. St. Augustine, Fla.
- **St. Phillip, Fort, La.*—P. O. Neptune, La.; tel. stn. Quarantine, La.; steamer tri-weekly from New Orleans, dist. 73 m.
- Sully, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. same; R. R. stn. Pierre, Dak., on C. and N. W. R. R., dist. 25 m.; tri-weekly buckboard from Pierre.
- **Sumter, Fort, S. C.*—P. O. Moultrieville, S. C.; tel. and R. R. stn. Charleston, S. C., dist. 5 m.
- Supply, Fort, Ind. T.* (Dept. Mo.)—P. O. Camp Supply, Ind. T.; tel. stn. at post; daily stage from Woodward, Ind. T., on S. K. R. R., dist. 15½ m.
- **Taylor, Fort, Fla.*—P. O., tel. stn. and boat-landing Key West, Fla.
- **Thomas, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; stage daily from Bowie Station, on S. P. R. R., dist. 65 m., and from Wilcox, Ariz., dist. 69 m. (Govt. transportation).
- Totten, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. same; R. R. stn. Devil's Lake, terminus of G. F. and D. L. branch of St. P., M. and M. R. R., dist. 14 m.; summer by stmbt., winter over ice; and daily buckboard from Oberon, on Jamestown branch N. P. R. R., dist. 11½ m.
- Townsend, Fort, Wash. T.* (Dept. Columbia.)—P. O. and tel. stn. Port Townsend, Wash. T.; special conveyance from Port Townsend, dist. 3 m.
- Trumbull, Fort, Conn.* (Dept. East.)—P. O., tel. and R. R., stn. New London, Conn., dist. 1 m.
- Union, Fort, N. Mex.* (Dept. Ariz.)—P. O. and tel. stn. same; daily stage or buckboard from Watrous, N. Mex., on A., T. and S. F. R. R., dist. 9 m.
- Vancouver Barracks, Wash. T.* (Dept. Columbia.)—P. O. and tel. stn. same; boat ldg. Vancouver, Wash. T.; boat or stage from Portland, Oreg., daily (except Sunday).
- Verde, Fort, Ariz.* (Dept. Ariz.)—P. O. and tel. stn. same; tri-weekly buckboard from Prescott, Ariz., on P. and A. C. R. R., dist. 45 m.
- Wadsworth, Fort, N. Y.* (Dept. East.)—P. O. Rosebank, Staten Island, N. Y.; tel. stn. Quarantine, Clifton, Staten Island, N. Y.
- Walla-Walla, Fort, Wash. T.* (Dept. Columbia.)—P. O., tel. and R. R. stn. (O. R. and N. Company, connecting with N. P. R. R.) Walla-Walla, Wash. T., dist. 1 m.
- Warren, Fort, Mass.* (Dept. East.)—P. O. and tel. stn. Boston, Mass.; steamer from Boston, dist. 7 m.
- Washakie, Fort, Wyo.* (Dept. Platte.)—P. O. same; tel. stn. Rawlins, Wyo.; daily stage (except Sunday) from Rawlins, on U. P. R. R., dist. 147 m.
- Washington Barracks, D. C.* (Dept. East.)—P. O., tel. and R. R. stn. Washington, D. C.
- **Washington, Fort, Md.*—P. O. same; tel. stn. Alexandria, Va.; stmbt. from Washington, D. C., dist. 13 m.
- Wayne, Fort, Mich.* (Dept. East.)—P. O. and tel. stn. Detroit, Mich.; city railway from Detroit, dist. 4 m.
- West Point, N. Y.* (U. S. Mil. Acad.)—P. O., tel. and R. R. stn. same.
- Whipple Barracks, Ariz.* (Dept. Ariz.)—P. O., tel. and R. R. stn. (P. and A. C.) at post.
- Willets Point, N. Y.* (Engineer School of Application.)—P. O. and R. R. stn. White-stone, N. Y., dist. 2½ m.; tel. stn. Willets Point. (See Engineer Depot.)
- **Winfield Scott, Fort, Cal.* (Dept. Cal.)—P. O. and R. R. stn. San Francisco, Cal.; tel. stn. Presidio of San Francisco, Cal.
- Wingate, Fort, N. Mex.* (Dept. Ariz.)—P. O. and tel. stn. same; R. R. stn. (A. and P. R. R.) Wingate, dist. 3 m.
- **Winthrop, Fort, Mass.*—(P. O. Boston, Mass.; steam-boat from Boston, dist. 2 m.)
- Wood, Fort, Bedloe's Island, N. Y. H.* (Dept. East.)—P. O., tel. and R. R. stn. N. Y. City.
- Yates, Fort, Dak.* (Dept. Dak.)—P. O. and tel. stn. same; buckboard (60 m.) and steam-boat (90 m.) from Bismarck, Dak., on N. P. R. R.; and from Mandan, on N. P. R. R., dist. 58 m.

ARMORIES, ARSENALS, AND DEPOTS.

ARMORIES, ARSENALS, AND ORDNANCE DEPOTS.

Allegheny Arsenal, Pa.—P. O., tel. and R. R. stn. Pittsburgh, Pa.; Maj. G. W. McKee, comdg.

Augusta Arsenal, Ga.—P. O., tel. and R. R. stn. Augusta, Ga., dist. 3 m.; Maj. J. W. Reilly, comdg.

Benicia Arsenal, Cal.—P. O., tel. and R. R. stn. Benicia, Cal., dist. 1 m.; Col. Silas Crispin, comdg.

Cheyenne Ordnance Depot, Wyo.—P. O., tel. and R. R. stn. Cheyenne, Wyo.; Capt. M. W. Lyon, comdg.

Fort Abraham Lincoln Ordnance Depot, Dak.—P. O. and tel. stn. Fort Abraham Lincoln, Dak.; boat landing at the fort and buckboard daily from Maudan, on N. P. R., dist. 7 m.; Capt. John Pitman, comdg.

Fort Leavenworth Ordnance Depot, Kans.—P. O., tel. and R. R. stn. (M. P. R. R., and C., R. I. and P. R. R.) Fort Leavenworth, Kans.; Capt. C. W. Whipple, comdg.

Fort Monroe Arsenal, Va.—P. O. and tel. stn. Fort Monroe, Va.; stmbts. daily from New York, Baltimore, Washington, and Norfolk, and railroad (C. and O.) from Richmond, Va.; Maj. Isaac Arnold, comdg.

Frankford Arsenal, Pa.—P. O. and tel. stn. (telephone to post) Philadelphia, Pa.; Bridesburg, on P. R. R., dist. $\frac{1}{2}$ m.; hourly stage bet. Frankford and Bridesburg passes arsenal; Lieut. Col. D. W. Flagler, comdg.

Indianapolis Arsenal, Ind.—P. O., tel. and R. R. stn. Indianapolis, Ind.; Maj. Clifton Comly, comdg.

Kennebec Arsenal, Me.—P. O., tel. and R. R. stn. Augusta, Me.; Capt. O. E. Michaelis, comdg.

National Armory, Mass.—P. O., tel. and R. R. stn. Springfield, Mass.; Lieut. Col. A. R. Buffington, comdg.

New York Arsenal, N. Y.—P. O. and tel. stn. Governor's Island, N. Y.; Govt. steamer from New York City, dist. $1\frac{1}{2}$ m.; Lieut. Col. Alfred Mordecai, comdg.

Rock Island Arsenal, Ill.—P. O. and tel. stn. Rock Island, Ill.; special conveyance from R. R. stns. and boat ldfs. in Rock Island, Ill., and Davenport, Iowa, dist. 2 m.; Col. T. G. Baylor, comdg.

St. Louis Powder Depot, Mo.—P. O., tel. and R. R. stn. Jefferson Barracks, Mo.; Capt. J. G. Butler, comdg.

San Antonio Arsenal, Tex.—P. O., tel. and R. R. stn. San Antonio, Tex.; Maj. L. S. Babbitt, comdg.

U. S. Powder Depot, N. J.—P. O., tel. (telephone to post) and R. R. stn. Dover, N. J.; dist. $4\frac{1}{2}$ m.; Maj. F. H. Phipps, comdg.

Vancouver Barracks Ordnance Depot, Wash. T.—P. O., tel. stn., and boat ldg. Vancouver, Wash. T.; boat from Portland, Oreg., daily; Capt. W. S. Starring, comdg.

Watertown Arsenal, Mass.—P. O., tel. and R. R. stn. Watertown, Mass.; Lieut. Col. F. H. Parker, comdg.

Watervliet Arsenal, N. Y.—P. O. and tel. stn. (telephone to post) West Troy, N. Y.; R. R. stn. East Troy, N. Y., dist. 1 m.; Col. J. M. Whittemore, comdg.

RECRUITING DEPOTS.

Columbus Barracks, Ohio.—P. O. and R. R. stn. Columbus, Ohio; tel. stn. at post; Maj. W. R. Kellogg, 19th Inf., comdg.

David's Island, N. Y.—P. O. same; tel. stn. New Rochelle, N. Y.; horse-car and boat from New Rochelle, on N. Y., N. H. and H. R. R., dist. 3 m., or Govt. str. tri-weekly from Pier 58, North River, N. Y. City, dist. 22 m.; Lieut. Col. Frederick Mears, 4th Inf., comdg.

Jefferson Barracks, Mo.—P. O., tel. and R. R. stn. same; Maj. David Perry, 6th Cav., comdg.

ENGINEER DEPOT.

Willeys Point, N. Y.—P. O. and R. R. stn. Whitestone, Queen's County, N. Y., dist. $2\frac{1}{2}$ m.; tel. stn. Willeys Point; Lt. Col. W. R. King, in charge.

HEADQUARTERS OF REGIMENTS.

CAVALRY.

- | | |
|----------------------------|--------------------------|
| 1. Fort Custer, Mont. | 6. Fort Wingate, N. Mex. |
| 2. Fort Walla-Walla, Wash. | 7. Fort Riley, Kans. |
| 3. Fort Clark, Tex. | 8. Fort Meade, Dak. |
| 4. Fort Huachuca, Ariz. | 9. Fort Robinson, Nebr. |
| 5. Fort Reno, Ind. T. | 10. Santa Fé, N. Mex. |

ARTILLERY.

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| 1. Presidio of San Francisco, Cal. | 4. Fort Adams, R. I. |
| 2. Huntsville, Ala. | 5. Fort Hamilton, N. Y. |
| 3. Washington Barracks, Washington,
D. C. | |

INFANTRY.

- | | |
|-----------------------------|----------------------------------|
| 1. Angel Island, Cal. | 14. Vancouver Barracks, Wash. T. |
| 2. Fort Omaha, Nebr. | 15. Fort Buford, Dak. |
| 3. Fort Snelling, Minn. | 16. Fort Douglas, Utah. |
| 4. Fort Sherman, Idaho. | 17. Fort D. A. Russell, Wyo. |
| 5. Fort Bliss, Tex. | 18. Fort Hays, Kans. |
| 6. Fort Leavenworth, Kans. | 19. San Antonio, Tex. |
| 7. Fort Laramie, Wyo. | 20. Fort Assiniboine, Mont. |
| 8. Fort Niobrara, Nebr. | 21. Fort Sidney, Nebr. |
| 9. Whipple Barracks, Ariz. | 22. Fort Keogh, Mont. |
| 10. Fort Union, N. Mex. | 23. Fort Wayne, Mich. |
| 11. Madison Barracks, N. Y. | 24. Fort Bayard, N. Mex. |
| 12. Fort Yates, Dak. | 25. Fort Missoula, Mont. |
| 13. Fort Supply, Ind. T. | |

ADJUTANT GENERAL'S OFFICE,
Washington, D. C., October 1, 1888.

G.—Casualties from the U. S. Army for the fiscal year ended June 30, 1888.

Organization.	Discharged.						Retired.	Died.	Deserted.	Transferred from line to Hospital Corps.
	Expiration of service.	Disability.	General court- martial.	Civil author- ity.	Order.					
					Minority.	Other causes.				
Headquarters Army and divisions and departments.....		1	1			23		3		
Engineers.....	24	16	11		3	13	2	4	48	9
Ordnance.....	42	10	3			23	5	4	10	8
First Cavalry.....	154	20	5		4	5		3	51	10
Second Cavalry.....	123	23	9		2	10	3	3	52	14
Third Cavalry.....	115	27	19		2	2		6	54	13
Fourth Cavalry.....	91	32	29		7	10	2	3	48	19
Fifth Cavalry.....	126	14	12		1	3	1	7	54	21
Sixth Cavalry.....	112	18	23		9	16	1	4	69	13
Seventh Cavalry.....	122	26	14		7	5		1	64	11
Eighth Cavalry.....	142	37	15		3	1	1	2	65	14
Ninth Cavalry.....	134	31	14		5	7		10	13	7
Tenth Cavalry.....	143	10	15		1	3		11	7	17
First Artillery.....	75	18	10		2	2	2	3	89	14
Second Artillery.....	90	17	17		1	5	2	1	69	18
Third Artillery.....	52	15	13		3	12		6	31	21
Fourth Artillery.....	73	16	10			9	1	4	69	16
Fifth Artillery.....	87	11	13		1	10		6	70	20
First Infantry.....	50	35	17		1	5		3	32	17
Second Infantry.....	66	20	10		1	9		3	26	8
Third Infantry.....	41	16	11		3	3	1	4	40	15
Fourth Infantry.....	86	19	7			10		1	17	15
Fifth Infantry.....	55	12	6		2	11	1	3	39	18
Sixth Infantry.....	47	8	13		2	8			49	13
Seventh Infantry.....	87	17	15		4	5		6	45	21
Eighth Infantry.....	39	18	12			3		4	41	10
Ninth Infantry.....	72	15	7			13	2	5	31	17
Tenth Infantry.....	44	12	11		3	3	1	4	43	16
Eleventh Infantry.....	79	10	10		4			2	54	14
Twelfth Infantry.....	58	10	9		3	1	1	1	59	15
Thirteenth Infantry.....	49	8	16		1	5		3	48	12
Fourteenth Infantry.....	43	24	14		1	7		4	23	10
Fifteenth Infantry.....	65	10	6			5			55	15
Sixteenth Infantry.....	43	11	15		4	4	1	1	61	19
Seventeenth Infantry.....	55	12	18		3	10		2	54	10
Eighteenth Infantry.....	71	11	11		6	5		4	10	20
Nineteenth Infantry.....	68	16	8		2	7		6	27	11
Twentieth Infantry.....	73	7	11		2	4	1	3	71	16
Twenty-first Infantry.....	76	16	14		1	6		1	46	18
Twenty-second Infantry.....	71	7	22		3	3		3	52	11
Twenty-third Infantry.....	62	9	18	1	5	3		3	60	17
Twenty-fourth Infantry.....	52	13	5		1	1		4	2	6
Twenty-fifth Infantry.....	40	16	14			2		2	4	11
Recruiting service, mounted.....	12	38	33	3	42	9		25	283	5
Recruiting service, general.....	15	67	19		48	34		15	216	6
Detachments:										
West Point.....	24	2	1			3	4	4	7	6
Provost guard, Fort Leavenworth.....	17							1		6
General non-commissioned staff.....	20		3			3	10	5		
Signal Corps.....	3,285	801	589	4	193	342	42	203	2,436	623
Hospital Corps.....	78	5				69		4	1	
	64	4	4			8	4	4	7	
Total.....	3,427	810	593	4	193	419	46	211	2,444	623

RECAPITULATION.

	Army proper.	Signal Corps and Hospital Corps.
Discharges.....	5,214	232
Deaths.....	203	8
Retirements.....	42	4
Desertions.....	2,436	9
Transfers to Hospital Corps.....	623	
Total loss.....	8,518	252

H.—Number of enlistments and re-enlistments in the U. S. Army, and number of men gained from desertion during the fiscal year ended June 30, 1888.

Organization.	No. of enlistments.	No. of re-enlistments.	No. joined from desertion.	No. joined Hosp. Corps from line of Army.
General service (clerks, &c.), divisions, and departments.....	19	2		
Engineers.....	9	24		9
Ordnance.....	39	68		2
First Cavalry.....		15		7
Second Cavalry.....		17		1
Third Cavalry.....		17		16
Fourth Cavalry.....	4	11		15
Fifth Cavalry.....		25		11
Sixth Cavalry.....	5	19		14
Seventh Cavalry.....		16		9
Eighth Cavalry.....	7	19		7
Ninth Cavalry.....	1	24		4
Tenth Cavalry.....	4	48		2
First Artillery.....	4	24		12
Second Artillery.....	60	29		16
Third Artillery.....	33	23		12
Fourth Artillery.....	43	27		5
Fifth Artillery.....	75	46		15
First Infantry.....		4		3
Second Infantry.....		7		10
Third Infantry.....		7		10
Fourth Infantry.....		14		3
Fifth Infantry.....		16		4
Sixth Infantry.....		8		13
Seventh Infantry.....	3	8		11
Eighth Infantry.....		8		7
Ninth Infantry.....		11		6
Tenth Infantry.....		8		9
Eleventh Infantry.....	34	34		7
Twelfth Infantry.....	5	4		9
Thirteenth Infantry.....		5		13
Fourteenth Infantry.....		5		9
Fifteenth Infantry.....		18		10
Sixteenth Infantry.....		10		4
Seventeenth Infantry.....		12		11
Eighteenth Infantry.....		19		9
Nineteenth Infantry.....	1	18		7
Twentieth Infantry.....		6		11
Twenty-first Infantry.....		13		6
Twenty-second Infantry.....		11		22
Twenty-third Infantry.....	64	13		17
Twenty-fourth Infantry.....		15		1
Twenty-fifth Infantry.....		17		2
Detachments:				
West Point.....	20	23		2
U. S. Military Prison, Fort Leavenworth (provost guard).....	5	13		1
General non-commissioned staff.....		19		
General recruiting service.....	2,788	320		30
Mounted recruiting service.....	2,281	189		52
Departmental recruiting service:				
California.....	107	58		
Arizona.....	52	18		
Columbia.....	41	11		
Dakota.....	144	28		
Missouri.....	187	55		
Platte.....	132	48		
Texas.....	143	66		
Signal Corps, U. S. Army.....	6,310	1,593		456
Hospital Corps, U. S. Army.....	54	66		1
	11	43		1
Total.....	6,375	1,702	458	623

RECAPITULATION.

	Army proper.	Signal Corps and Hospital Corps.
Enlisted.....	6,310	65
Re-enlisted.....	1,593	109
Gained from desertion.....	456	2
Joined Hospital Corps by transfer from line.....		623
Total gain.....	8,359	799

REPORT OF THE INSPECTOR-GENERAL OF THE ARMY.

WAR DEPARTMENT,
INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., October 10, 1888.

SIR: I have the honor to submit the following report of the operations of the Inspector's Department during the year ending October 15, 1888, with such observations as seem to be the logical consequence of the work of the Department.

PERSONNEL.

The changes in the personnel of the Department during the year last past have been as follows:

Brig. Gen. A. Baird, Inspector-General, by whom the last annual report was made, continued at the head of the Department until the 20th day of August, on which day he completed the sixty-fourth year of his life (forty-three of which had been devoted to the public service) and was placed upon the retired list by operation of law.

Col. Roger Jones, inspector-general, was nominated to the vacancy made by the retirement of Brigadier-General Baird, and was commissioned brigadier-general on the 31st day of August.

Lieut. Col. R. P. Hughes, inspector-general, was promoted to the grade of colonel and inspector-general on the 31st of August, *vice* Jones, commissioned brigadier-general.

Maj. George H. Burton, inspector-general was promoted to the grade of lieutenant-colonel and inspector-general on the 31st of August, *vice* Hughes, promoted.

Capt. H. W. Lawton, Fourth Cavalry, was nominated to the position of major and inspector-general made vacant by the promotion of Inspector-General Burton on the 17th of September and was commissioned on the 2d of October and reported for duty in the Department on the 4th instant.

Of the four officers of the line of the Army who were acting inspectors-general under the provisions of the act of Congress of the 23d of June, 1874, at the date of the last annual report, two promotions have taken place—Lieut. Col. E. C. Mason, acting inspector-general, promoted to the colonelcy of the Third Infantry; Maj. Robert H. Hall, acting inspector-general, promoted to the lieutenant-colonelcy of the Sixth Infantry.

STATIONS.

Col. J. C. Breckinridge, inspector-general, is still stationed at the headquarters of the Division of the Missouri, Chicago, Ill. He has been on leave of absence since June 27, 1888.

Col. R. P. Hughes, inspector-general, was relieved from duty at the headquarters of the Division of the Pacific on the 7th of July per paragraph 11, Special Orders No. 156, from the War Department, and has not yet been assigned to a new station, but was temporarily assigned "in charge" of the Inspector-General's Office at Washington, D. C., on the 7th of September, on account of the temporary indisposition of the officers on duty in the bureau, and he is still on duty under this temporary assignment.

Lieut. Col. E. M. Heyl, inspector-general, has continued on duty at the headquarters of the Department of Texas, but is under orders to report in person at the headquarters of the Division of the Pacific, San Francisco, Cal.

Lieut. Col. George H. Burton, inspector-general, continued on duty at the headquarters of the Department of the Missouri until July 21, when he was transferred to the headquarters of the Department of Arizona at Los Angeles, Cal., and he reported for duty as inspector-general of that department on the 26th of July.

The station of Maj. H. J. Farnsworth, inspector-general, has not been changed.

Maj. H. W. Lawton, lately appointed into the Inspector's Department, has been assigned to duty temporarily in the office of the Inspector-General.

Of the officers of the line of the Army who are on duty in the Department, Lieut. Col. W. F. Drum, Twelfth Infantry, acting inspector-general, was transferred from the headquarters of the Department of Arizona to the headquarters of the Department of Dakota, and reported for duty at his new station on the 15th of August.

Lieut. Col. Robert H. Hall, Sixth Infantry, has continued on duty as acting inspector-general of the Department of the Platte, at Omaha, Neb.

Maj. S. S. Sumner, Eighth Cavalry, has continued on duty as the acting inspector-general of the Department of the Columbia.

As the assignments now stand there is no officer of the Inspector's Department located at the following headquarters:

Division of the Atlantic and Department of the East, Department of Texas (Lieutenant Colonel Heyl ordered to San Francisco), and Department of the Missouri.

There is one vacancy in the Department in the number of acting inspectors-general authorized to be detailed from the line of the Army by act of June 23, 1874. In this connection it may be permitted me to make a remark upon the situation in its relation to the duties of inspectors-general.

The development of very high powers in arms and materials has made a high degree of training and skill in the use of arms indispensable. The capabilities of the weapon and the skill of the man to use it must increase in like ratio. The inevitable consequence of this constantly increasing power and exactness in weapons is to segregate the courses of training and systems of instruction of the different arms of the service.

The encouraging and grafting on of improvements and the discouraging and eradicating the superfluous and useless are the special duties of inspectors. To keep himself in condition to accomplish this responsible duty an inspector must not only keep up with the special requirements of all branches of the service, but he must be in advance of them.

The *technique* of artillery has reached such a point that in the great armies of Europe two systems of inspection are found necessary, one for field artillery and one for heavy artillery. In our small Army, where our inspectors are required to make general inspections, it would seem quite advantageous that each branch of the service should be fairly represented in the corps. As it now stands there are in the regular establishment four who have been chosen from the cavalry arm of the service, two from the infantry, and one from the artillery. Of those acting as inspectors-general, one is from the cavalry and two from the

infantry. The three arms of service are now represented in the Inspector's Department as follows: Artillery one, infantry four, cavalry five.

It would seem very desirable that the artillery should have some additional representation in the corps.

The reports of the annual inspections of posts and garrisons that the inspectors general are required to make by the regulations have been received from sixty-seven of the one hundred and seventeen garrisoned posts. Many of the other posts have been inspected, but the reports have not yet reached this office. The records show that the money accounts of four hundred disbursing officers have been inspected and supervised by this Department. The detailed itemized reports of these inspections are submitted herewith as required by the act of the 20th of April, 1874. Aside from the usual established work of the Department many special investigations have been made by members of the corps, reports of which have been submitted to the proper authorities.

OFFICERS.

I hazard nothing in making the statement that the moral tone and mental condition of the corps of officers of the United States Army has never been better, if so good, as it is to-day. In this connection I wish to submit a recommendation. Many of our young officers have sufficient zeal for their profession to wish to travel abroad in order to gain a more thorough and intimate insight into the conditions and requirements of their profession as demonstrated in the armed nations of Europe. Many more of our young officers would avail themselves of this professional instruction than now do so if they did not have to make such great sacrifices to secure it. During the war of the rebellion, when the Government was in financial straits and the number of commissioned officers in her armies almost doubled the aggregate strength of our Army of to-day, it was found expedient to pass an act placing officers on half pay who were absent from their duties "on leave" for more than thirty days in any one fiscal year. The law undoubtedly had a dual purpose in view, viz., discipline and economy. After the close of the war the law was modified making the leaves cumulative; i. e., in case an officer did not avail himself of the thirty days' leave authorized in each year he could let them accumulate until he was entitled to four months' leave without loss of pay, but no more.

Many officers have denied themselves the authorized annual leave in order to get this four months accumulation, and then have gone abroad for self-improvement. But cutting one's self off from friends and society at a frontier post for four years in order to accomplish this object is a very great sacrifice, and one that it seems should not be demanded. The reduction of pay of officers on leave is no longer needed for disciplinary purposes under the present highly satisfactory condition of the officers of the Army; the report of the Treasurer of the United States does not seem to indicate that the small reductions made from the pay of officers "on leave" form an item of material weight in his accounts.

Foreign travel is, or should be, a part of an officer's education. He can find much instruction in the operations of large masses of troops in the annual autumnal maneuvers of great armies and it is submitted that officers wishing to go abroad for this purpose should be encouraged in every way to do so and should not be subject to a reduction of pay when doing so, provided that their absence meets the full approval of the proper authorities. It is thought that leaves of absence for the purpose of foreign travel and professional improvement should be special

in their character and should in no way militate against the thirty days leave per annum now authorized.

ENLISTED MEN.

Recruitment.—Under the system of voluntary engagement the men now being enlisted for the Army are probably of as good quality as we should expect. It is to be remarked, however, that a very large per centum of our recruits are foreigners. It is not a pleasing sight to see our small Army, of but one man in every 2,500 of population, recruited from the needy immigrants from all civilized nations. It is possible that this can not be avoided, but it would seem that a strong effort in that direction might do something towards lessening the mortifying spectacle.

In re-enlistments many men with wives and families are authorized to re-engage. So far as relates to the line of the Army a married man is not desirable. Married men were allowable when their wives were authorized as laundresses, and some old soldiers are now in the service to whom it would be a hardship not to be permitted to re-enlist, but in order that this undesirable condition may be gradually eradicated, it would seem advisable that no married enlisted man who may now be serving his first enlistment in any troop, battery, or company should be permitted to re-enlist; that no authority be granted hereafter to soldiers to marry, and that no married *recruits* should be accepted under any circumstances. We occasionally find men who have served out their sentences as criminals in some guard-house or military prison again enlisted into the service, and it occasionally occurs that men creep into the ranks of the Army who are known to have committed heinous crimes. Efforts should be made to clear our ranks of all such injurious materials. Every criminal who is permitted to wear the uniform is just so much alloy in the material of which the Army is composed, and we very much want pure metal. In this connection I wish to add that there is a seeming impropriety in permitting military convicts, Indian scouts, etc., to wear the soldiers' uniform. Such a course has a tendency to destroy any pride the real soldier might otherwise have in his badge of office and lowers the dignity that naturally belongs to the position. In this connection I wish to recommend the localizing of regiments and the delegating to each regiment the duty of securing its own recruits; assigning to each regiment a certain geographical district from which to draw them. Men work zealously and carefully when self-interest is at stake, and by the system of recruitment above suggested each officer and recruiting sergeant would have that powerful incentive to stimulate his activity and caution. If such a course is not deemed advisable for all the Army at the present time, I would strongly urge the adoption of it for the four regiments of colored troops. It requires experience with these troops to be able to judge of the sort of colored men that make the best soldiers, and their recruitment should be considered a specialty and conducted by those officers who, by close association with their regiments, have acquired sufficient discernment to be able to form a fair estimate of the individual worth of the colored men who may offer themselves for engagement.

Intelligence.—It is now of rare occurrence to find a soldier who can not sign the pay-roll, but there are a good many of them who can do little beyond that. In these days of open-order fighting and extended formations there is no telling when a short written report from an observant soldier may produce very important results. If reading and

writing have become necessary to the soldier for the proper performance of his duties, the qualifications that will fit him to meet these new demands can be required of him with as much propriety as there is in the compulsory education to which he has now to submit in being taught to read and record the signs of the signal service, the object of both being to prepare him to meet, satisfactorily, some accidental military emergency. The desirability of having every enlisted man qualified to read any written instructions that may be given or sent him, and to write intelligent reports, does not admit of denial. Furthermore, why should we not avail ourselves of the opportunity thus put in our hands to make these unfortunate men learn to read, write, and think. Aside from the fact that, by so doing, we would make better soldiers of them (for modern conditions demand that every soldier be capable of thought), we would return them to civil life at the expiration of their engagements qualified to make much better citizens.

The reports in this office too frequently read, "no post school," or, "the post school is not a success." Such statements should indicate that there is no longer necessity for these schools, rather than that the men do not avail themselves of the opportunity offered them for improvement.

The enlisted men who gain commissions under existing conditions are very few in numbers. It is not unusual for boards of examiners to find very worthy young soldiers appearing before them that seem well fitted for commissions in every way except in their intellectual attainments. The opportunities afforded these non-commissioned officers for fitting themselves for appearing before the boards of examiners are very different at the different posts. It has occurred to me that it would probably stimulate some worthy men to make an effort to rise in their profession if there was a class of candidates for commissions organized in connection with the school of infantry and cavalry at Leavenworth, Kan., to which class a limited number of promising non-commissioned officers, who have served for two years with their regiments, might be sent for one year's instruction before presenting themselves as candidates for examination for commissions. Should any of them fail in qualifying for commissions it is possible that some of them might render very valuable services as quartermaster and commissary sergeants at posts.

Discipline.—The reports and statistics in this office show the discipline of the Army to be very fair. It is not intended to convey the impression by this statement that courts martial are not of very frequent occurrence, but rather that there is an intelligent mental subjection of the enlisted men to the requirements of their superiors, to the articles of war, orders, and regulations, that must be considered very good, and that penal measures to secure this mental condition in the soldier are of very rare occurrence. A careful examination of the records of trials by courts martial shows that the great bulk of these trials result directly from failure on the part of the soldier to resist habits acquired prior to his enlistment that are inconsistent with the proper performance of duty and are prejudicial to good order.

It may be paradoxical, but it is a fact all the same, that military discipline is very fair, but the self-control and self-government of the enlisted men, individually, is not so satisfactory. This, of course, is the natural result of our system of minimum remuneration and voluntary engagement.

Desertion.—The records of this office show that there has been a slight increase in the number lost from this cause during the past year in some of the departments, while in others there has been a little decrease.

In reporting upon this subject, Lieut. Col. Robert H. Hall, Sixth Infantry, acting inspector-general, writes as follows:

The number of desertions during the year ending is reported to be 269, as against 300 in the twelve months next preceding.

Of this number, 138, or a few more than 51.3 per cent., deserted during the first year of service; 80, or a few more than 28.9 per cent., during the second year; 31, or a few more than 11.5 per cent., in the third year; 15, or a few more than 5.5 per cent., in the fourth year; and but 5, or a few more than 1.8 per cent., in the fifth year of the enlistment. Over 80 per cent. of these desertions occurred before the expiration of the second year of service. It is, therefore, again suggested that this subject be further investigated with a view to determine whether the rule be general that four-fifths of the desertions from the Army are in the first two years of the enlistment; and that if it be true, that legislation be requested reducing the term of enlistment to two years with a re-enlistment period of five years.

INSTRUCTION.

Setting up.—The reports coming to this office indicate that the general instruction of the Army is fair. It is noticed that some of the departmental inspectors report that the men are indifferently set up.

It is to be regretted that we have no prescribed system of athletic exercises that would give the men a thorough setting up and a gradual but sure development of such portion of the muscular system as each individual may have neglected to exercise. Some of our military posts are provided with gymnasias, but there is, as a general rule, no regular course pursued, and in most cases exercise in the gymnasium is entirely optional and the men are left to pursue their own inclinations. This practice is productive of accidents and injuries and is of but little real value. To make such needed exercises effective there should be a gymnasium provided for each garrison and a progressive system of exercises adopted and required to be followed. It is believed that some athletic medical officer might be found who would be willing to draw up a system of athletic exercises and submit it for examination. Most of the published works seem to be much more elaborate than the Army requires.

DRILL.

Infantry and artillery serving as infantry.—The drill of the infantry and the artillery serving as infantry is reported by the inspectors as generally fair. This refers, however, only to the drill laid down in the United States infantry tactics introduced into our service in 1867. Drilling in accordance with the old system has a good disciplinary effect, but is otherwise of little value. There are tentative efforts being made to inaugurate a system of summer camps and marches for the infantry arm of the service, that might be made very instructive if carried out with care and much good judgment. Scarcely a day passes on some of these marches when fine opportunities do not occur for giving instructive lessons to the young officers and enlisted men in the plan of attack best adapted to the accidents of the then situation; in making disposition for the defense of a position just reached when suddenly and unexpectedly confronted by an enterprising enemy; in making reconnaissances and locating outposts; dispositions to be made in advancing into an enemy's country, etc. There is little or no evidence in this office that any efforts have been made to instruct the troops in these very essential matters. Some of these things can be partially taught in garrison and its vicinity, but they are or should be the very essence of *infantry practice marches*. This work would undoubtedly be a relief to the men after so much of "fours right" on the garrison parade.

Cavalry.—The cavalry, as such, does not appear to be found in a very satisfactory condition. There is a strong tendency towards the condition of mounted infantry in our cavalry. This state of things is the natural result of our application of mounted troops in the war of the rebellion and of the service required of the Army on the frontier in operating against Indians. But as the work of the cavalry on the frontier now seems to be reduced to simply watchfulness over assemblages of Indians, there is no sufficient reason why all the cavalry should not cease to adhere to its condition of mounted infantry and undertake a careful and thorough education in the specialties of that arm. The reports in this office indicate that the very fundamental principle of the cavalry is not satisfactorily taught. The remark that "the men did not seem at home in their saddles," "Equitation poor," "The horses were restive, and the men did not sit them well," are occasionally noticed, and it is not unusual to see the remark that, "The saber exercise was badly executed," "The horses were too nervous to admit of satisfactory pistol practice," etc.

All these things are cavalry specialties and all have received more or less criticism, but there does not appear a single adverse criticism upon their performances on foot. This seems to indicate that some of our cavalry commanders have assumed that the horse has ceased to be the weapon of the trooper. This condition is undoubtedly fostered by our present system of classification in foot target practice. Distinction and rewards are to be earned in rifle and carbine shooting, and the cavalry must compete with the infantry. If the cavalry arm of the service were made a distinct class by itself, and excellence in all the duties belonging to its specialty was required in obtaining distinction and rewards, a much more earnest endeavor to perfect themselves in their specialties might find birth.

The reports in this office do not show that any effort is being made to instruct the mounted troops in the manner of making reconnaissances, in submitting reports of rides of explorations, in setting out outposts, in drawing rough sketches that will explain reports transmitted, etc. All these things would relieve the monotony of garrison duty and be interesting to the men after so much "right by twos" of garrison life, aside from their essential importance.

Artillery, Light.—Some of the light artillery is still plodding along with the same guns they had at the close of the war of the rebellion, although the Prussians learned from the Austrians at Nachod, nearly a quarter of a century ago, that such guns would not meet modern requirements. It is anxiously waiting for the new steel breech-loading guns. The instruction of these batteries seems to be sufficiently good for the guns and materials now supplied them in so far as relates to the United State light-artillery tactics. But much of the wagon drill should disappear with the introduction of the new steel guns, and a systematic and thorough course of theoretical and practical instruction should be provided for in advance. The introduction of the new guns should be accompanied with a liberal supply of materials for target practice, if our light artillery is going to reach that degree of proficiency that is now claimed by the artillery of Europe; that is, "the ability to protect itself against any enemy arriving from the front in open ground." The reports in this office show that some of our light batteries at the present time not only have no practice firing, but that, owing to the peculiarities of their locations, it is not possible for them to have any. For instance, Lieutenant-Colonel Mason, acting inspector-general, Department of Da-

kgta, in his report of an inspection of Fort Snelling, referring to the inspection of Light Battery F, Fourth Artillery, says:

There being no suitable ground in the vicinity of the post for the purpose, no target practice is held, so a very important element in the instruction of the battery is necessarily omitted.

In some cases this want might be supplied by purchasing or hiring a range, in others it might be necessary to locate the battery at another place.

The light batteries are frequently sent out on practice marches. These marches should be full of instruction for the younger officers and the men, if carried out with care and discretion. Each march might present its own peculiar lesson in artillery works: the choosing of positions, the lines of approach, the attack of positions, the attack or defense of defiles, estimating distances, etc. Such instruction is of the highest importance, and there are no better opportunities for imparting instruction on these and kindred subjects than when the batteries are moving every day; provided, always, that the route of march is chosen with that end in view.

Artillery, Heavy.—Efforts are being made to secure effective instruction in the manipulation and firing of heavy guns. The officers of the artillery are enthusiastic in the cause, and are prepared to carry on the course with energy and zeal, but they meet with many obstacles and disappointments in the way of insufficient means and inferiority of materials. The condition of the sea-coast artillery of the Atlantic coast is clearly set forth in a *résumé* submitted to the assistant adjutant-general of that division on the 27th of April last, by Capt. J. P. Sanger, First Artillery. It is presumed that that report has been furnished to the Headquarters of the Army and the War Department. It is only necessary to add to that report the condition of the heavy artillery on the Pacific coast. There are nine foot batteries of the First Artillery stationed on the Pacific coast, and all of them are stationed in and around the harbor of San Francisco, as follows: Two on Alcatraz Island, one at Fort Mason, and six at the Presidio.

The batteries on Alcatraz Island have no rifled sea-coast guns with which to practice. The battery at Fort Mason has no rifled sea-coast guns in condition for instruction. There are eighteen 8-inch muzzle-loading rifled guns (converted) at the Presidio. Unfortunately these guns are mounted in a position where they are hopelessly harmless, and where it is utterly impossible to secure valuable heavy artillery target practice from them. They are mounted in the second tier of casemates of Fort Scott and facing the narrow part of the Golden Gate, which is about 1 mile in width. It is not possible to give these guns the elevation necessary for instruction in firing in the position they now occupy. This fact was reported to the proper authorities by the inspector-general of the Division of the Pacific, Lieut. Col. R. P. Hughes, in an inspection of these posts last year, from which we will quote:

The siege guns and the 15-inch Rodman guns in the barbette earthworks overlooking the outer gate are the guns the artillery have been confined to in their practice firing. The battery of 8-inch rifles (converted) are mounted on casemate carriages, and are located in the second tier of Fort Scott. It is impossible to secure any valuable instruction from these guns while thus located. They can not be sufficiently elevated to give a good range to the projectile.

Inasmuch as these are the best guns we have about the harbor, I would recommend that some of them be taken down and mounted in the barbette earthworks on the hill commanding the Golden Gate and the outer gate, where they can at least be made available for the instruction of the officers and men of these artillery batteries. There

might be some expense entailed in getting these 8-inch rifles in shape for work in the new position, as they would have to be mounted upon barbette carriages, and I am not positive that there are any such carriages for these guns in the ordnance yard, but if there are not, I think carriages should be required for.

This post has not been supplied with the improved sights for any guns.

Subsequent investigation demonstrated the fact that there were no barbette carriages for these 8-inch rifles to be had either about the harbor or on the Pacific coast, and requisition was made for what was necessary to make the change in the position of these guns, but was returned from both the Ordnance and Engineer Bureaus with the information that there were no funds available for that purpose. Much other material was required for that was much needed at the Presidio for the instruction of these batteries, but they succeeded in getting but a small part of what was asked for.

Inasmuch as the Presidio is so situated that all the batteries in and about the harbor of San Francisco can go there very conveniently for their heavy-gun firing, and as there would be a great deal to contend against in introducing and conducting heavy-gun firing at Fort Mason and Alcatraz Island, I think special efforts should be made to move some of the 8-inch rifles from Fort Scott and to mount them in the barbette earth-works on the hill, and to secure ample means and materials for carrying out a thorough course of instruction in the maneuvering and firing of heavy artillery.

Paragraph 471, Army Regulations, should be annulled. Climatic variations are too great in this immense territory of ours to justify the fixing of definite seasons for work that requires, for good results, a clear atmosphere and fair weather.

SCHOOLS.

As a preface to this subject it is submitted that legislative action might give additional character and force to some of our military schools. This would seem to be the case with the schools at Fortress Monroe, Va., and Fort Leavenworth, Kans. The reports in this office show that it occasionally happens that an officer is sent to one of these schools as a student and given special opportunities to fit himself for the position for which he has been commissioned, who, either through want of capacity or by reason of non-application and neglect, fails to secure a certificate of proficiency from the staff of the school at the close of the course. It does not matter to which of the foregoing causes the failure to secure this certificate is attributable; the fact remains that the officer student is incompetent. But, although the incompetency of the officer is thus made apparent, it is not followed by any of the consequences that are usual in like cases. The commission of the inefficient officer is not vacated; he does not retire from active service; he is not dropped from the Army list, and the promotion that will fall to him in course of time by virtue of seniority in his grade is not prevented. It would seem but reasonable that an officer who is not found "proficient" at the end of the course in any military school should not receive promotion to a higher grade until he has shown to the board of examiners at such school that he has made himself proficient.

We now have four schools for the practical application of military arts and sciences: One at Willets Point, N. Y., for the Engineer Corps; one at Fortress Monroe, Va., for the artillery; one at Fort Leavenworth, Kans., for the infantry and cavalry, and one at Fort Riley, Kans., for cavalry and light artillery.

The last-named is in process of organization, and is still in a very incomplete and undeveloped state.

Sooner or later nearly all our young officers pass through one of these schools. In taking a course at one of them they are supposed to gain a thorough and complete knowledge, by means of practical application, of all that pertains to the arm or arms of the service to which the school belongs.

The battalion of engineers is the only one that is kept up to a fair numerical strength. The battalions at the other schools are by no means a fair representation of what a battalion would be upon a war-footing, and the question naturally arises whether we are not inculcating wrong notions in the minds of these young officers in having them working with commands where a corporal's guard figures as a company and a battalion does not have the numerical strength of a good-sized company. Be that as it may, it is certainly very desirable that all our young officers should be given some opportunity to learn what a battalion upon a war-footing really is, and some experience in the manipulation of it. In other armies officers are given an opportunity to gain this experience in the autumnal maneuvers when the men on leave are called up. No such opportunity presents itself to our officers, and as there seems to be little prospect that the strength of our organizations will all be increased to such an extent as to enable our officers to get the instruction mentioned in serving with their own commands, the best means of supplying this want and correcting the evil would probably be found in increasing the national forces sufficiently to raise the strength of the battalions at our schools of application to such a strength as battalions may be reasonably expected to have in case of war.

There are five batteries in the battalion at Fortress Monroe; there are four companies of infantry and four troops of cavalry at Fort Leavenworth (two battalions). I believe it is the intention ultimately to have a regiment of cavalry, twelve troops (three battalions), and five batteries of artillery at Fort Riley, but there is a good deal not yet decided as to this; but, be this as it may, it is certainly very desirable that at this cavalry school there should be a group of at least two horse batteries fully manned, horsed, and equipped in their full condition for active service, for these batteries would gain their education as horse artillery in drilling, maneuvering, and marching with the cavalry at the school. It is also evident that the thorough education of the officers of field artillery demands that there should be assembled, somewhere, a group of at least three light batteries fully manned and mounted, and of full war strength. We thus find that the proper practical education of our young officers at these schools, which are provided for that special purpose, makes it very desirable that the following addition should be made to the national forces:

To five foot batteries of artillery, 75 men each.....	375
To four companies of infantry, 75 men each.....	300
To four troops of cavalry at Fort Leavenworth, 40 men each.....	160
To twelve troops of cavalry at Fort Riley, 40 men each.....	480
To two horse batteries of artillery (one group), 60 men each.....	120
To three mounted batteries of light artillery (one group) 45 men each.....	135

Making a total increase of enlisted strength..... 1,570

An additional number of horses would also be necessary:

To sixteen troops of cavalry, 40 horses each.....	640
To two horse batteries, 80 horses each.....	160
To three mounted batteries, 30 horses each.....	90

Horses..... 890

According to the data furnished this office the expense of maintaining a soldier at Fort Leavenworth or Fort Riley, Kans., is about as low as at any of our military stations. The expense of maintaining horses at Fort Riley is very low and but a trifle higher at Fort Leavenworth. There is no data in this office showing the approximate expense of maintaining troops at Fortress Monroe, but it is known to be low. A rough calculation based upon the data in this office indicates that the addition above named to our national forces would not cost to exceed \$600,000 per annum. The importance of the purpose in view is certainly sufficiently great to overcome any objections to the necessary expenditure.

TARGET PRACTICE.

Rifle and carbine.—So much of the course of "Blunt's Rifle and Carbine Firing" as relates to the firing at the known ranges and as skirmishers, in order to arrive at a "figure of merit," is carried on with great zeal and intelligence, and the result is that on known ground or at known distances it does not seem to be overstating the case in saying that the exactness of the firing of many of our garrisons borders on the marvelous. This results from rewarding great excellence. The disagreeable question arises, however, whether the instruction in this part of the soldier's duty is so conducted as to produce an educational condition that will be most valuable in the presence of an enemy who has been thoroughly educated in the course in its entirety. The reports from inspectors indicate that the instruction in estimating distances is very indifferently taught. Now, to pit two equally good marksmen against one another, one of whom has thoroughly learned to estimate distances and the other not, would be about similar to a battle between two pugilists one of whom had one of his arms tied. The better the shot, without fair estimation of distances, the less effect will be produced. "Blunt's Rifle and Carbine Firing" lays down that enlisted men must be able to form fairly correct estimates of distances up to 1,000 yards and commissioned officers to 2,000 yards, but the reports in this office lead to the belief that there are few commands so instructed. The remedy for this state of things would seem to be quite evident, to wit, make estimating distances one of the factors, and a large one, in calculating the "figure of merit" in all contests for rewards; enlisted men up to 1,000 yards and commissioned officers to 2,000.

"Blunt's Rifle and Carbine Firing" provides for volley firing at long ranges, *i. e.*, at ranges beyond 600 yards. The importance of this provision in the course of instruction in small-arms firing can not be overestimated. Without attention to this part of the course all the men who do not show fair promise of ability to become sharpshooters, and in many companies this includes the great mass of the organization, graduate in rifle firing at 600 yards or less. Now, it seems to be generally conceded that the future positions of field artillery will be at least 1,000 yards from the enemy's infantry line, and in active operations it must often occur that the infantry will be given a battery as its target. In such cases volley firing would be applicable. If the mass of the men are not given any instruction in firing at distances beyond 600 yards they will be in very poor plight for disabling a battery a mile away. Here is another factor that might be taken into the calculation in arriving at the company "figure of merit."

In taking all these elements into the calculation for the classification of the organizations it might necessitate a change in the method of arriving at the degree of efficiency attained by them. It is believed

that this result could be obtained by discontinuing the present invariable system of competition and by substituting therefor something of this kind: At or about the close of the target season give to each man a designated number of cartridges to be fired under such conditions as may be established from year to year at the Headquarters of the Army, and let the classification of the organization be determined by the result of this firing.

Before quitting this subject it may be well to invite attention to an apparent want of completeness in the "skirmish firing" as given in our authorized system. In this part of our target practice the troops should gain instruction and experience in accommodating themselves quickly and dexterously to the accidents and irregularities of the ground and to the changed conditions which each move on the field brings in their surroundings. In other words, the nearer this practice firing as skirmishers is made to simulate the situation in which the men will find themselves when actually engaged the more valuable will it be. The object of this practice, as stated in the authorized course, is "to give the soldier practice in promptly and correctly estimating the constantly and varying distance which separates him from his target." This object is a vital one, but it is thought not to be the only one that should be aimed at in this practice.

The introduction and skillful application of long-range breech-loading rifles that are capable of being fired with great rapidity and accuracy has brought about an entire revolution in so much of the art of war as relates to battle tactics, well-directed disciplined fire having taken the place of well-concentrated disciplined masses of men. "Fire tactics" have been substituted for "shock tactics." By deduction the great tactical problem of the present day would seem to be how to bring the maximum number of rifles into the fighting line with the presentation to the enemy of the minimum amount of target. Between equal forces, the commander who succeeds in bringing the greater number of rifles into action in proportion to the amount of target offered to the enemy will certainly have the advantage. The extent of that advantage will be in direct ratio to the difference in the proportions existing between the number of rifles and the amount of target exposed by the two forces. As skirmish firing is now conducted by our troops, for every rifle in the firing line there is a target the size of a man offered to the enemy. The men are being habituated and trained to locate themselves on exposed sites. This is not authorized in the course, but it is the natural result of competition and want of stringency in the conditions as prescribed. Of course in action there would be a few men who would seek these exposed sites, but with the great mass of the men the very reverse would be the case when the field was swept by the enemy's fire. These sites are now selected because they enable the man to deliver his fire from some favorite posture. It seems to be the custom in this practice to permit a pause of some seconds between the command "Halt" and the command "Commence firing." The men do not avail themselves of this pause to see how they can best accommodate themselves to the site in which they find themselves, but in finding a site that is accommodated to them.

If this practice is continued in this way until we find ourselves in front of a worthy foe, we will have either to change the instructions then, in the presence of the enemy, or permit the fire of the enemy to force the change upon the men, and either course would have a demoralizing effect.

It would probably entail some expense in obtaining privileges, and

some marching on the part of the troops to secure the execution of this drill in the full spirit of service requirements, but the securing of efficient instruction would seem to demand the sacrifice.

The published records of this practice as now held has a misleading tendency.

The data in this office show that 25 per cent. of the picked shots of companies have failed to make 9 per cent. of hits on "D" targets at less than 400 yards distance on unknown ground.

The figures published in general orders giving the percentage of hits made by 80 per cent. of companies are very much higher.

JUDICIARY.

In examining the reports of trials by general courts-martial it is noticed that occasionally men have been convicted of theft and permitted to return to the ranks of their companies after suffering a fine and probably a short period of confinement. A dishonest soldier is as much out of place in our ranks as a burglar on the police force of a city. The object of the soldier is to protect the honor of the nation and the lives and property of her citizens. A thief has no place in such a force.

There is great need of legislative action authorizing summary punishments of petty offenses. There seems to be no difficulty in dealing with these trivial matters in the police courts of our civil communities, and it could certainly be done in our military communities if legally authorized. No civilized army, except our own, finds it necessary to convene a court of three officers as jury and judges, and a prosecuting officer, in order to determine whether John Doe or Richard Roe missed tattoo roll-call or not. The matter is still further aggravated by the fact that these four officers are still unable to dispose of the case, but must submit a formal record of their proceedings and findings, and of the sentence they adjudge to a reviewing authority.

It is evident to all who have had opportunities to study this subject that a system of summary punishment for petty offenses should be authorized. It would be more economical, more effective, and better policy, than the existing method of awarding punishment.

It is of common occurrence now to see officers sent long distances in order to enable a post-commander to appoint a garrison court-martial. The expenses of these journeys do not fall upon the prisoner but upon the Government. A summary method of punishment would be more effective, for it would be swift and sure, while with the present heavy machinery offenses are passed over to avoid the annoyance of a tedious trial. It would be better policy, for in any authorized system of summary punishments the imposing of the penalty would be delegated to an officer of much experience in dealing with men, while the majorities of garrison courts-martial are generally composed of young lieutenants who have had a limited experience in controlling and instructing men. Three of the officers engaged in trying petty police court cases could be much more advantageously employed.

As it is a fair demand that in recommending the abandonment of the existing methods a substitute should be suggested, the following is submitted:

Delegate to company commanders the power to impose summary punishments to the following extent: First, ten days' confinement at hard labor; second, ten days' loss of pay; third, ten days' confinement on bread and water and loss of pay.

To field officers commanding posts or battalions the power to sum-

marily punish to the extent of, first, twenty days' confinement at hard labor; second, twenty days' loss of pay; third, twenty days' confinement and loss of pay.

The garrison courts might still continue as courts of appeal. In case the accused denies his guilt, or considers himself injured by the punishment adjudged, if before his company commander, let him appeal to the field officer commanding; if before the field officer commanding, let him appeal to a garrison court-martial.

A careful examination of the general court-martial orders coming to this office develops convincing evidence that more system should be introduced into our administration of justice. As the matter now stands, locality and the *personnel* of the courts have much influence upon the degree of punishment inflicted upon our criminals. By carefully comparing the general court-martial orders published in the different military departments, we find the expiation of offenses is much heavier in one than another. Continuing this analysis within the geographical lines of military departments, it is noticed that the location where a man may be tried and the *personnel* of the court seem to vary the severity of the punishment. In the general court-martial orders of some of the departments there seems to be a tentative effort to retain men convicted of desertion for at least as long a period as would have completed the term of the engagement that they attempted to shorten by desertion. In these departments we may find the same court sentencing men guilty of the same offense in one case to two years' hard labor, and in the next to nearly five years. But there is consistency in their action. One man has served four years before desertion, while the other has served but a few weeks. In other military departments the punishment meted out to deserters would seem to be for the crime itself, without giving consideration to the date in the term of enlistment when the crime was committed. This would not be subject to objection if men did not sometimes resort to crime to avoid disagreeable engagements.

It is pretty well understood that when the punishment for desertion has been regulated in this way that men have deserted with the previous announcement that "two years in prison was shorter than four years in service." The intent of the crime was to secure a release from a voluntary engagement.

The obvious cure for this would be to make the sentence for desertion at least co-extensive with the unexpired term of the broken engagement in all cases.

QUARTERMASTER'S DEPARTMENT.

The supplies furnished by the Quartermaster's Department seem to give very general satisfaction. The reports contain but few criticisms or objections. To one who reads the reports coming to this office the most severe criticism appears in something of this form: "The new barrack that I so earnestly recommended to be built at this point, in my report of last year, for the accommodation of this company has not been erected, and my report seems to have received no attention." Some years ago there was considerable latitude left to the Army commander, and through him to his division and department commanders, in determining just how that portion of the estimates of the various commands that had been granted by Congress should be applied. In late years this latitude seems to have been taken from the general officers. Looking at it from an inspector's point of view, this has been

done to the detriment of the public service and to the great discomfort of some of the troops.

This office is not informed as to the methods taken to arrive at the needs of the different commands, but of one thing it is sure, that is, that it is not done by a personal detailed inspection of the condition of each and every post and garrison—an examination that would show what the relative needs of the different garrisons are. If the commanders, who have the reports of their inspectors before them, and who can secure from them personally all the details of the situation, had greater latitude in applying that portion of their annual estimates that is allotted, they would undoubtedly keep a better equilibrium in the condition of their commands. The personal equation of post commanders and quartermasters seems to be too great a factor in the existing system. The posts having a quartermaster who can paint a striking word picture and a commander who can write a powerful indorsement on a weak case seem to get money when the more needy posts, that have less fluent quartermasters and less impressive commanders, must continue to suffer. Occasionally stables are built at one post that a contiguous post would be glad to have for barracks. I am not informed as to the cause that brought about a change from the former system, but the present system does not seem to satisfy the officers of this department, who are entirely disinterested observers, and who seem to be zealously striving for the common good of the Army.

The allowance of rooms for officers' quarters does not appear to have been increased since the publication of the Regulations of 1835. The manner of living has greatly changed in the past half century, and what may have been correct at that time may be looked upon as improper now. Rents have greatly increased. One thing is quite certain, viz: It is not possible for a lieutenant to set up his establishment and live in the manner that is now considered that the Articles of War require him to live, *i. e.*, as an officer and a gentleman, in two rooms. Four rooms are as few as any one should be expected to keep house in. Through the liberality of the Quartermaster's Department in constructing quarters the cases of hardship in garrisons, on account of insufficient room, are the exception rather than the rule, but when captains or lieutenants are detached from their commands and sent to cities on duty, on recruiting duty, at colleges, etc., the commutation allowance of three rooms for a captain or two rooms for a lieutenant (\$12 per room) will not rent them such a house as their positions will admit of their occupying. The commutation of four rooms (\$48 per month) will fail, as a rule, to secure them such a house as their positions require them to occupy, but the granting of this increased allowance would be a move in the right direction.

The forage allowance for horses is too large for garrison duty. In this connection it may be well to quote an extract from the annual report of Maj. George H. Burton, inspector-general:

As a result of my experience and inquiry I am convinced that at some of the larger frontier posts, garrisoned in whole or in part by cavalry, there is not sufficient vigilance observed by the officers in the feeding of their horses. At many of the places in the Territories posts are surrounded by a class of people that are ready to get money by all kinds of questionable means. Grain at such places is generally scarce and exorbitant in prices, and too often non-commissioned officers are willing to deny the public animals the Government allowance in order to make something themselves. Commanding officers of posts should demand the presence of an officer to personally superintend the feeding of all Government animals, and report their action accordingly.

It would seem that in many mounted commands the full allowance of grain is fed to the public animals while in garrison. A horse accus-

tomed to so much grain when undergoing light exercise will not find the same allowance sufficient when he is called upon to undergo long and arduous exertion. It is believed that it would be to the advantage of the service if the garrison ration of grain for public horses was reduced to 10 pounds.

It is noticed in the transferring of property at posts from one quartermaster to another, and from one company commander to another, that the "when" and "from whom" the property came is always given as of last transfer. This course of proceeding renders it utterly impossible at times for the inspector to learn the age of the property he is inspecting, and, as the length of time that the property may have been in the public service very often becomes an important factor in the action of an inspecting officer, it is advised that when property arrives at the post, company, or troop to which it pertains, that the "when" and "from whom" it was received should remain unchanged, so long as the property remains at that post or in the possession of any company or troop.

The reports coming to this office state that the annual allowance of Berlin gloves to the cavalry is entirely inadequate for the demand.

Régulations make no provision for "stable call" for the Quartermaster's Department. It is thought that the proper grooming and care of the draft animals is just as important as that of the saddle animals, and that there should be "morning stables" for the quartermaster's department at every station where there are any considerable number of draft animals.

The regulations governing the purchase of cavalry horses might be changed for the better in so far as relates to age. As the requirements now stand the horses must be between five and nine years of age when purchased. It would undoubtedly be an improvement to make it from four to six, and for two reasons, either of which is sufficient. One is that the younger horse has more years of good service in him, and the other that we would get less unsound or injured animals.

In connection with this subject of purchasing horses, Lieutenant-Colonel Heyl, inspector-general, serving at the headquarters Department of Texas, remarks as follows:

It is recommended that the purchase of cavalry horses for this department should be made in Texas by a board of cavalry officers. Better horses can be procured at less cost; the horses being acclimated, are fit for service at once. At least 50 per cent. of the horses shipped here from the North are not fit for the service for a year afterwards, and fully 20 per cent. have to be condemned from the effects of acclimating fever.

Maj. George H. Burton, inspector-general, in speaking of supply departments in his annual report, submits the following:

The supplies furnished by both the Quartermaster and Subsistence Departments, in the Department of the Missouri, during the past year have been very generally of good quality and reasonable in price. There is a suggestion just here that I think would redound to the benefit of both these departments, viz: That the purchasing officers pay more strict attention to the inspection of supplies. As a general rule there are no better judges of the salt meats and the canned vegetables than the older commissary officers of our Army, but, too frequently, their long study of the subject of the various foods and their experience in judging of the same are lost to the service through the action of special paid inspectors, who are generally men living on small salaries, and who can not and do not take the interest in the matter that the officer himself would. The same criticism applies to the Quartermaster's Department in the inspection of grain, hay, and fuel, as well as supplies of a more delicate nature.

Extra duty.—There seems to have grown up in the Quartermaster's Department a very general impression that a man detailed on extra

duty is then a quartermaster's man and exempt from attending drills and other strictly military duties. This construction of what extra duty was intended to be is certainly wrong, and is very detrimental to securing efficient instruction. Extra duty, for which additional remuneration is granted, is duty over and above or in addition to the duty that is purely military in its character, and the performance of such extra duty should not excuse the men from attendance at drills and other military exercises.

SUBSISTENCE DEPARTMENT.

The reports of the inspectors are, as a general rule, very flattering to the Subsistence Department. There are occasionally a few remarks found in the reports coming to this office that indicate some dissatisfaction with some of the details. The following is from the annual report of Lieut. Col. William F. Drum, Twelfth Infantry, Acting Inspector-General:

SUBSISTENCE DEPARTMENT (FRUIT AND VEGETABLES), —, 18—.

Referring to the transportation of articles purchased with hospital and company funds, it is earnestly recommended that paragraph 1964, Army Regulations, as amended by General Orders 53 of 1885, be further amended by striking out the words "the money value of which is greater than the cost of transportation to destination." It is practically impossible to raise vegetables at some of the posts in Arizona and New Mexico, and at the others to only a limited extent. The desire for fruit and vegetable diet is strong and the benefit is acknowledged, and if the articles are taken on arrival at posts without loss to the subsistence department it would appear to be in the interests of the Government to transport them, whatever their value might be at place of purchase. The paragraph referred to requires that such articles be "purchased at the nearest accessible market," and it is in the interests of the troops to purchase fresh vegetables as near the post as possible in order to avoid loss in transit. For the foregoing reasons it is not probable (?) that the purchases would be made any further from the station than is absolutely necessary.

The main dependence for vegetables is the company garden. These gardens have to be created by means of the proceeds received from sale of the deductions made from the soldier's ration. This ration is so small that no diminution of it should be permitted; the most that should be done would be to exchange portions of the issue ration, that does not suit individual men in companies, etc., for an equivalent of an article that will suit. Theoretically this conversion of materials is the aim and object of company and post gardens. Practically, however, about 50 per cent. of the deductions from the men's rations that are invested in gardens is a total loss. The causes are many—want of means to irrigate, drought, grasshoppers, etc. In addition to failures of gardens, the reports of this office also show that at some posts the opportunities for selling the company savings are so poor that there is virtually no company fund with which to seed a garden. It is also occasionally reported that the company can make no savings. Now, with all these difficulties and uncertainties to contend against, the company or post garden, as a source of supply, seems to be entirely too uncertain to enter as an important factor in properly supplying the troops. I think the better method would be to add a reasonable supply of the more substantial vegetables to the daily ration issued to the troops while in posts or garrisons.

There is much want of skill in the cooks of the Army. As a means of improving this condition of things I would recommend that one cook for each company or band be paid by the Subsistence Department the amount of extra pay now given to a skilled mechanic in the Quarter-

master's Department. The work is laborious, very confining, and very trying to clothing; necessitates much more than the ordinary amount of washing of clothes, etc., and it would seem that extra compensation would be but right.

The Commissary-General of Subsistence has recommended the employment of bakers at all large posts. The recommendation meets with general approval, and, if possible, it should be carried into effect.

MEDICAL DEPARTMENT.

This department may well be proud of its standing and record. The *esprit de corps* is all that could be wished.

It is noted that in occasional cases medical officers have commissioned officer patients of which no record is kept. This is most likely to occur with commanding officers who are attended at their houses, and who may still continue to perform the office duties of their positions. The occasion too frequently occurs, when a record of such ailment and treatment is wanted by the Pension Bureau or elsewhere, that no such minutes are to be found. It would certainly be beneficial if medical officers made a record of all military patients treated by them.

It is noted that at some military posts where there are gymnasia the men are permitted to pursue their own course of exercise. It might be good policy to require that the post medical officer should exercise an advisory supervision over all such physical exercises.

PAY DEPARTMENT.

The Army has been promptly paid; a portion of it monthly and the balance bi-monthly.

ENGINEER CORPS.

There seems to be no established measurements to which the engineers stationed at department and division headquarters draw the maps that are prepared by them from time to time. It is not unusual to find in an office quite a collection of departmental maps that contain the latest information, but no two of which are drawn to the same scale.

As military operations and movements of troops give rise to much consulting of maps, the reading of them should be made as simple and easy as possible. By making them agree in scale of measurement this would certainly be accomplished. I would recommend that competent authority establish certain standard measurements to which Government maps shall be drawn in the future.

ORDNANCE DEPARTMENT.

The new carbine boot issued to the cavalry does not appear to meet the universal approval.

Lieut. Col. William F. Drum, Twelfth Infantry, Acting Inspector-General, reports as follows:

Cavalry equipment.—As old equipments become unserviceable they are replaced by the new, which are generally satisfactory.

The carbine boot does not, however, appear to give satisfaction to the majority of cavalry officers, and it is respectfully recommended that the troop commanders in this department, most of whom have seen much field service, be asked for their opinion in writing.

Maj. S. S. Sumner, Eighth Cavalry, Acting Inspector-General, reports as follows :

It is reported that the front sight is often injured by catching in the boot, and the rear sight in the same arm is sometimes broken off.

And in another report the following appears:

The commanding officer of the cavalry makes the same objection to the new carbine boot as mentioned in other reports.

In regard to Colt's revolving pistols the following remarks are found in reports submitted to this office.

Lieut. Col. W. F. Drum, Twelfth Infantry, Acting Inspector-General, says:

Complaint was made by Capt. T. J. Wint, Fourth Cavalry, that the revolvers now issued did not appear as good as formerly and were more apt to get out of order.

Maj. S. S. Sumner, Eighth Cavalry, Acting Inspector-General, says:

The Colt's revolver, caliber 45, when used with the reloading cartridges now issued, is very uncertain when discharged according to instructions contained in "Blunt's Rifle and Carbine Firing." When the short, quick jerk forward and downward is given with much quickness and some strength, the cylinder will revolve so as to bring the hammer down either on the rim or in the joints of the primer and shell, failing to explode the cartridge; this not always but sufficiently to undermine confidence in the weapon when used with this kind of ammunition; this will occur less frequently with a new Colt's revolver than with one that has been in use some time. Jamming is sometimes caused by the cartridge slipping out of the chamber and rubbing on the side of the pistol, rendering the weapon utterly useless until taken apart and unloaded. Several cartridges were shown me that had failed to explode. I am not able to say where the trouble lies, but if these pistols become unserviceable with garrison use, there must be a defect somewhere.

The reports in this office indicate that the withdrawal of the experimental magazine rifles from the hands of the troops did not receive the unanimous approval that would seem desirable in such an important matter. In referring to this subject, Lieut. Col. R. P. Hughes, Inspector-General Division of the Pacific and Department of California, writes as follows:

Some of the enlisted men who have carried these arms were very strong in their expression of approval of them. In my inquiries amongst the enlisted men who have carried these magazine rifles as to their opinion on the subject one fact was quite apparent, viz, that the man who carried a repeating rifle felt a material increase of confidence in himself, and while it is quite possible, and may be quite probable, that none of the rifles submitted for trial are what we want, yet it would seem, from what I have learned in my work, that the trials should be continued, and if nothing else results therefrom much information may be gained from the experience that will be of great value when a magazine arm has been found that is satisfactory.

A careful analysis of the objections to these magazine rifles, as published by the Chief of Ordnance, results as follows:

In one hundred and forty-six reports, forty-seven object to these rifles because the reloaded ammunition did not work well in them. There is a significance in this that should not be overlooked. These rifles were distributed for trial at a time when there was very great enthusiasm in target practice and when the competition for superiority was at fever heat. No ammunition was given with these rifles for experimental purposes but the target-practice allowance had to be used for that purpose. A large portion of the target-practice ammunition was reloaded, and thus we find over 32 per cent. of the company commanders who submitted reports present an objection that does not apply to the rifle at all but to the system or mechanical execution of reloading cartridge shells.

The Lee magazine rifle seems to have been found the least objectionable. Of one hundred and sixteen reports in which the Lee rifle was

considered, thirty-four seem to present no objection to it, and seventeen no defined objection. Of the sixty-five objections given against the Lee magazine rifle, six are for defective sights and ten for being at "full cock when loaded." It is submitted that the former is a simple matter and easily corrected, while the latter is no defect at all. Deducting these sixteen from the sixty-five objectionists and adding them to the non-objectionists the figures would stand with the Lee magazine rifle as follows: sixty-seven non-objectionists to forty-nine objectionists. There are so many important questions of tactical application, etc., connected with the introduction of magazine small-arms that it would seem very desirable that we should be gaining experience with them while waiting for the discovery of such a rifle as will meet our requirements. If the Lee magazine rifles are still in the possession of the Ordnance Department, I would recommend that certain commands, designated from Headquarters of the Army, be armed with them until a better can be supplied in their place.

In speaking of the Ordnance Department, I wish to remark that ordnance sergeants seem to be appointed without any inquiry into their qualifications for the duties of the position. Some preparation seems necessary to fit some of these men for the duties of their positions. The qualifications necessary for the proper performance of the work should be a condition of their appointment, or else they should be sent to some arsenal or armory for instruction in the requirements of their positions.

UNIFORM.

In certain things it seems that we have too great refinements in uniform, and in other things not quite enough. In the matter of officers' side arms there seems to be too much required.

In the artillery the company officers of foot troops have one sword, the officers serving with light batteries have another, and finally the field officers and adjutants another.

In the infantry the company officers have one kind of sword, while the field and staff have another. The lieutenant of artillery who joins his foot battery secures for himself an infantry sword; he soon finds himself assigned to one of the light batteries for duty, and procures a light artillery sword. If he is then so fortunate as to be appointed adjutant of his regiment he provides himself with a cavalry saber. Aside from the hardship that such outlays may occasionally cause to those concerned it increases the luggage that the officer must carry about with him. I do not know of any sufficient reason why one pattern of sword should not meet all the requirements of any one branch of the service.

Rubber clothing has become of very general use in civil life, but has not yet found a place in the clothing list of the Army. During peace, while troops are serving in garrisons, I do not see why rubber coats might not be worn when men have to be out in the rain. It would certainly have a tendency to keep the men in better physical condition for any future demands that might be made upon them.

POSTS.

There are now one hundred and seventeen garrisoned posts; over twenty of this number are garrisoned by but one company.

It is almost impossible to keep up the administration of a post and at the same time properly instruct the troops when the garrison is so

small. Aside from considerations of a purely military character, as a matter of public economy, these small posts should not be continued if it is practicable to dispense with them. The reports in this office from the inspectors-general and acting inspectors-general recommend the discontinuing of garrisons at the following posts, viz: Fort Abraham Lincoln and Fort Sisseton, Department of Dakota; Camp Del Rio, Department of Texas; Fort McDermit, Department of California; Fort Thomas, Fort Verde, and San Diego Barracks, Department of Arizona.

A careful examination of the information in this office creates the impression that the garrisons might be withdrawn from the following posts without detriment to the public good: Fort Townsend, Department of the Columbia; Fort Union, Department of Arizona.

COLLEGES.

The reports of inspectors-general of their inspections of colleges at which Army officers are serving as instructors in military science and tactics show that some effort is made to instruct the students in practical rifle firing. They further indicate that the annual allowance of ammunition for this purpose is entirely inadequate. While there might be an impropriety in saying that special provisions should be made for supplying this deficiency, yet there can be no impropriety in saying that if such provision were made it might be found to have been very wise policy at some future day. These educational institutions are the depots from which officers would be drawn in case of a national arming. Since "fire tactics" have supplanted the former "shock tactics," it is all important that officers should be theoretically and practically well instructed in the management and capabilities of portable arms, and taught to use them with a reasonable degree of skill. By a generous supply of ammunition to these colleges for target practice, and encouragement, it is possible that competitive contests in rifle shooting might, in time, become as popular with some of these inland colleges as boat-racing now is at the universities of our sea-board.

Very respectfully, your obedient servant,

R. P. HUGHES,
Colonel, Inspector-General.

The ADJUTANT-GENERAL, U. S. ARMY.

REPORT OF MAJOR-GENERAL HOWARD.

HEADQUARTERS DIVISION OF THE PACIFIC,
San Francisco, Cal., September 22, 1888.

GENERAL: I have the honor to submit the following report for the information and consideration of the Major-General commanding the Army.

Time has fully shown the wisdom of the change of location of division headquarters from the Presidio to the city of San Francisco, and in the removal of the headquarters of the Department of Arizona from Whipple Barracks, Ariz., to Los Angeles, Cal.

Economy has been effected and other interests of the service subserved.

The changes in stations of the troops in the Department of California (see Appendix A*) and also in the Department of the Columbia have

* Omitted.

been few, and made only where necessity or the comfort of the troops plainly required them.

Those in the Department of Arizona have been more numerous; many were rendered necessary in order to accommodate the distribution of troops to the ever-changing phase of the Indian question in that department.

COAST DEFENSES.

The condition of coast defenses, except in the naval supplement, in this division, is practically the same as set forth in my last report.

Nothing has yet been done to strengthen or even repair the existing works; but something more is needed. The old system, as planned and even now unfinished, must of course be changed or re-enforced by an efficient plant of torpedoes, shore and floating batteries, with adequate armaments.

It is believed that the indifference which has so long existed on the subject of coast defenses among our people, who would censure a commander for failure to protect our harbors with the means now at hand, is at last giving way. But complications on some one of the questions of the day—the Canadian fisheries, for example—may suddenly arise. Our northern neighbor is now doing on his comparatively barren western coast what we persistently neglect to do for even our richest seaports. He is putting his permanent fortifications in order. It is surely time to place our defenses in better condition.

It will take years to do this, and we can commence none too soon. I can not better indorse my convictions than to inclose with this report that of a committee of the California legislature upon this subject. (See Appendix B.*)

DESERTION.

The percentage of desertions in the division (7.8) is nearly the same as last year, varying somewhat at the different posts.

At the Presidio, for example, the percentage last year was 7.7; this year it is 18.9, an increase which is popularly attributed to a stringent and soldierly administration of affairs at that post. It is certain that in this case none of the ordinary causes of desertion have been increased, and, speaking for the whole division, it is equally certain that none of them have been entirely eliminated.

A sequestration of a portion of the soldier's ration to create "funds" for various purposes recognized as necessary is largely condemned by officers and has been repeatedly pointed out by them as one of the chief sources of dissatisfaction and causes of desertion.

The remedy is of easy application, and I believe that if a proper representation of the facts were made to Congress, it might provide for those "funds" which are now drawn from the soldier's daily bread.

The almost entire absence of any successful effort to recapture deserters is, in my opinion, one of the main reasons for so many desertions. The present reward for their apprehension is altogether too small, and I recommend that it be increased to \$50. At the time when it was instituted it was doubtless sufficient, but the conditions since then have changed. Officers of the law to whom I have given authority for the arrest of deserters have uniformly declined to touch the matter, saying that "there was nothing in it."

The smallness of the reward and the cost of the pursuit and subsistence of the prisoner until he is turned over to the proper military au-

* Omitted.

thorities show plainly why so few deserters are apprehended. Another cause is the decision of the United States Supreme Court in the case of *Kurtz vs. Moffat et al.*, which renders it necessary that the person arresting a deserter be first armed with a proper warrant from military authority. Failure to procure this now makes the arresting party, whether civil officer or private person, liable to an action in damages. In my opinion the authority which existed formerly to arrest deserters from the land and naval forces should be, by act of Congress, conferred upon all persons whomsoever.

DISCIPLINE.

Discipline, to be effective, must be carefully enforced. The reports upon the subject evidence that fair results have been obtained. There have been eight trials of commissioned officers within the division—one in the Department of California, one in the Department of the Columbia, and six in the Department of Arizona, with the average number of trials of enlisted men for serious and minor offenses. I call special attention to Company K, Fourteenth Infantry, as one instance in which no man has been brought before a court-martial within the year.

With a view to correct the variations of punishment for the same offense and to secure a uniform action concerning deserters apprehended after two years' absence, I renew my recommendation of last year concerning "courts-martial."

It is, perhaps, too soon to form an opinion as to the relative merits of the monthly and bi-monthly payments of troops, yet the data, obtainable so far, would seem to warrant a further trial of the former. I would call attention to the interesting report of the acting judge-advocate, Department of the Columbia, on this subject.

INSTRUCTION.

The instruction of the officers and men in the division has been well conducted and the results are satisfactory.

In all cases where permissible, practice marches and encampments for the purpose have been instituted during the year.

In the Department of the Columbia the rain interfered somewhat with the expeditions.

In the Department of Arizona the almost total cessation of Indian troubles has allowed the troops to maneuver over ground which they have in former years traversed in pursuit of a dangerous foe.

In the Department of California eight companies of the First Infantry will, at the expiration of the summer, have had a march of 250 miles, and an encampment at Santa Barbara, Cal., of nearly three months.

The Light Battery K, First Artillery, has had its usual march, but the remainder of that regiment stationed in the harbor of San Francisco, at the earnest solicitation of its commanding officer, has remained in garrison. He proposed a special course of instruction, as in his judgment more beneficial to that arm of the service. (See Appendix C.*)

TARGET PRACTICE.

Target practice has lost none of the ground gained in former years. In the division contest a soldier of the Second Cavalry made the phenomenal score for four days' shooting of 571, and the same sol-

* Omitted.

dier, with two others of the same regiment, were successful in winning four gold medals at the Army competition which has just been concluded at Fort Niagara.

More attention, I hope, will in future be given to the estimating of distances, and more to practice with the pistol by the cavalry arm. The present want of a system for each in keeping with their importance is possibly answerable for any lack of enthusiasm, and can certainly be remedied.

Attention is invited especially to those portions of the reports of the inspectors of rifle practice of the division and of the Department of the Columbia relating to the very noticeable number of serious injuries to the pieces of the competitors at the division and department contests.

It is suggested that the increased charge may demand a greater strength of these parts of the rifle than was necessary when the arm was first tested for adoption.

POSTS.

Following out the principle of the concentration of troops, Forts Canby and Thomas have been abandoned since the date of my last annual report.

I renew my recommendations of last year for the abandonment of Forts Klamath, Verde, and Selden. However, the views of the commanding officer of the District of New Mexico on the subject of Fort Selden are entitled to consideration.

After a personal inspection of Fort McDermitt, Nev., and investigation of the condition of the Indians in the vicinity, I have urged, for reasons given in a special report, that this station be retained temporarily.

While I agree with the commanding general of the Department of the Columbia in regard to the advisability of the Government securing at an early day sites for permanent posts which may be available in the future for the protection of the Puget Sound region, I differ with him as to the abandonment of Fort Townsend.

At present it is the only post in the vicinity of numerous reservations of half civilized Indians of Washington Territory.

The presence of troops in this locality is perhaps not so much needed to protect the settlers from depredations of the Indians as to restrain intruders from encroaching upon the lands and rights of these wards of the Government.

Fort Townsend, I believe, had better be retained until the present conditions cease to exist, or till the more permanent forts to protect the entrance to these waters are actually built.

An extract from the report of Col. Chauncey McKeever, assistant adjutant-general, which urges the retention of this fort, is attached. (See Appendix D.*)

I ask especial attention to the report of the commanding general of the Department of Arizona concerning the urgent necessity for greater appropriations for the construction and repair of barracks and quarters in his department.

It appears to me that the time has already come when we should consider the expediency of erecting large and permanent posts upon our Mexican frontier at such points as will give easy and rapid communication. The best sites for all purposes are where international lines of railroads cross the border; *e. g.*, at Nogales, El Paso, and such other locations on the Lower Rio Grande as may be required.

* Omitted.

In case a general system of permanent posts on the southern border be thought impracticable at present, I would at least urge the building of a new post near San Diego, Cal., somewhere between that point and the Mexican line, and the subsequent abandonment of the barracks in that city. The proceeds of the sale of the Government property in San Diego would go far to provide a suitable reservation for a post.

SUPPLY DEPARTMENTS.

The troops have been well supplied by the Subsistence and Quartermaster's Departments. Attention is invited to the recommendations of the acting inspector general of the Department of Arizona and of the chief commissary of subsistence of the Department of the Columbia, on the subject of "messing" and the soldier's ration. I renew my recommendations of previous years for the improvement of the ration and the enlistment of company cooks.

Horses.—Experience has demonstrated that suitable horses for the cavalry service can not be supplied by contract in the Department of Arizona. Some of the companies are practically dismounted, owing mainly to the failure of these contracts. The cost of nineteen horses bought during the year in open market in Arizona, New Mexico, and Southern California, to apply upon a defaulted contract, was \$189.08 each, not including the local rates of transportation to posts. It will be noticed that good unbroken American horses can be purchased in the neighborhood of Fort Bidwell at from \$80 to \$120 each. The cost of transportation in car-load lots to any point within the division would not, it is estimated, exceed \$15 each. The objection to the purchase of horses unbroken is scarcely of enough importance to prevent giving the system of horse supply urged in former reports a trial; for the majority of the horses now bought by contract must be handled for some time with much care and by an experienced trooper before they become fit for use.

MEDICAL DEPARTMENT.

The health of the troops in the division has been generally good. At a few points, owing to excessive heat and the bad quality of the water supplied, the ordinary percentage of sickness has been exceeded.

The present system, by which division and department commanders are completely divested of authority to locate or change the stations of medical officers, hospital stewards, and the men of the hospital corps, is not, in my judgment, a good one. Certainly these commanders can be sufficiently controlled by their seniors without relieving them from an essential responsibility.

GENERAL SERVICE CLERKS AND MESSENGERS.

The general service clerks, who at any time have abundance of work to perform, seem, by some oversight in the act of Congress which concerns them, to be deprived of one of the privileges that pertain to other enlisted men in the Army, namely, that of being retired with suitable pay. With respect to this, I again recommend such change in the law or regulations as may be necessary to retire them, as follows:

Class 3 with hospital stewards; class 2 with ordnance sergeants; class 1 with quartermaster sergeants; and general service messengers with sergeants of the line.

INDIANS.

The Indians in this division, during the past year, have generally been at peace.

At the date of my last report, and again in August of the present year, trouble arose among the Apaches at the San Carlos Agency, which threatened to become extensive, but the prompt measures taken by the department commander and the officers on the spot prevented more serious outbreaks.

Attention is invited to General Miles's report, herewith inclosed, upon the subject of the Tonto, Mojave, and Yuma Indians. His representations, reinforced by the statements of the officers immediately in charge of these Indians, are entitled to full consideration.

There is, in my opinion, but one relief from the Indians located near San Carlos, and that is their removal from the Territory.

Please call to the notice of the Department of the Interior that portion of the report of the commanding officer of the district of New Mexico which relates to the Navajo and Jicarilla Indians and their reservations. Colonel Grierson is an officer of long experience with Indians, and in this matter speaks from personal observation. I concur in his recommendations.

Something should be done, and that speedily, to better the status of the wretched, impoverished, and half-starved Hualapai Indians.

Renewing my advice of last year concerning them, I urge action upon it. A pointed and practicable solution of the troubles is suggested in an indorsement of Major Barber, assistant adjutant-general, upon a communication of the honorable Secretary of the Interior. (See Appendix E.)*

The Indians in the departments of California and the Columbia have been peaceable for some years, and with the help they receive are generally improving their condition. Their efforts in this direction are, as usual, beset with many obstacles, chief of which is the selling to them, by disreputable white men, intoxicating drinks. It is seldom that prosecutions are made for this offense, and in the few cases of conviction that have come to my knowledge, the penalties inflicted have been the lightest.

Troops are called upon from time to time to expel white trespassers from reservations. The trespassers are, here and there, emboldened by what is considered the inability or disinclination of the Government to maintain the rights of Indians upon reservations. Certainly the authority of the Government upon its own domain should be supreme.

The state of affairs upon the Round Valley Indian Reservation in California is in point, and extraordinary. The opinion expressed in my last annual report that "unless Congressional action is speedily taken the Government will be continued in the humiliating position of being outwitted and defeated in its efforts to see justice done to one of the most harmless and peaceful of its Indian tribes" has been more than justified.

A costly attempt, resulting in failure, was made, under the authority of the Secretary of War, to expel the intruders by use of troops. The power of the county courts was invoked. The officer in immediate command of the military was served with an injunction restraining him, and similar action was had against myself, at the instance of an alleged settler.

* Omitted.

Before hearing was had the cases were transferred to the United States courts and the troops withdrawn. As soon as the troops were withdrawn the plaintiffs asked to have the cases dismissed. Their request was granted, and thus the only hope for a judicial decision on the points at issue was disappointed. Since then the old status at Round Valley has been resumed, and has remained the same as it was before the attempt was made to remove the intruders. Congress alone can settle the claims, which, unsettled, practically continue to the intruders thirty-three thirty-fourths of the reservation until such remedial action shall be secured.

In General Gibbon's report, under the heading of "Courts-martial," he says:

The court-martial service in the department continues to work satisfactorily, but the restrictions placed upon the details by superior authority interfere somewhat with the proper organization of the courts where it is desirable to avoid courts of justice degenerating into mere forms. To these restrictions I have not in all cases been able to conform, the facts not justifying the statement that a full court could not be convened without manifest injury to the service. Restricting the details of general courts to the officers serving at one post, so long as the number there are sufficient for the minimum number (5), is not in conformity to the law on the subject, nor is it conducive to justice or discipline. It does make some reduction of money expended in mileage, but such economy should be exercised in every other department but that of justice, and I venture to express the hope that the restrictions placed on the details of general courts-martial will be removed. In this connection I invite attention to the fact that the expenditure for mileage in this department has for the past fiscal year been reduced by more than \$2,200 below what it was the preceding year.

As the evil which occasioned the restrictions referred to has been remedied I recommend that the division commander be authorized to remove them altogether.

I wish to express my grateful acknowledgment to the different members of my personal and permanent staff for the cheerful and efficient aid they have uniformly rendered me during this year. Their reports,* together with those of the department commanders, are herewith inclosed for your information.

I am, sir, very respectfully, your obedient servant,

O. O. HOWARD,
Major-General, Commanding.

The ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

REPORT OF BRIGADIER-GENERAL MILES.

HEADQUARTERS DEPARTMENT OF ARIZONA,
Los Angeles, Cal., September 8, 1888.

SIR: Concerning the troops in this department, I am able to report them in good condition, well equipped, and at all times prepared for any service.

The inspection reports show that the officers have been faithful and attentive to their duties and the troops well instructed and disciplined. The lack of ample allotment of funds for "barracks and quarters" has rendered it necessary for the troops to occupy quarters which in some instances are unhealthy and uncomfortable.

I again call attention to the limited amount of funds furnished for barracks and quarters and repairs of posts, and recommend that as

* Omitted.

much of the appropriation for that purpose as can be spared be allotted to this department.

Within the past year the Thirteenth Infantry has been removed from this department, and replaced by the Twenty-fourth Infantry. Slight change of troops in garrison have also been made, but of a nature requiring no detailed account.

The results of target practice in the department shows that notwithstanding the amount of field service and labor required of the troops the standard of merit in this important branch of the military service is most excellent.

During the autumn of last year the troops in the department were, as far as practicable, put in the field and practically and thoroughly instructed in every feature of field service, special attention being given to marching, maneuvers, heliograph signaling, etc., as per the following order:

General Orders, }
No. 24. }

HEADQUARTERS DEPARTMENT OF ARIZONA,
Los Angeles, Cal., August 20, 1887.

I. During the months of September and October of this year, the troops of this department will be considered as on field duty and will be instructed and exercised in all that pertains to the practical requirements of field service. During those months all other drills and duties will, as far as practicable, be suspended, except the target and signal practice required by orders of the War Department, which will be regulated so as to admit of this field service.

II. On September 1 post commanders will occupy their districts of observation by the location of outposts, signal and heliograph stations, and establish communications with the nearest signal stations of the adjacent posts.

III. During the first fifteen days of that month post commanders will, if necessary, make themselves familiar with the topographical features of the district of country within their charge, and give such instructions to the troops of their commands regarding every detail of field service as will render them most efficient and afford them a knowledge of the general features of the country in which they are serving, and give to them that general knowledge of the geography and topography of the country as will enable them to pass over it readily without the aid of guides, compass, or maps.

IV. Cavalry troops will be specially instructed in movements by open order formations. To this end care will be taken to make the trooper and his horse the unit rather than to adhere constantly to the close formation of a troop, with a view of training the horses to act separately and independent of the close column.

V. After two weeks of this kind of practice, the commanding officer of Fort Huachuca, Ariz., is hereby directed to send out a detachment of troops to march from that post to Fort Apache, Ariz., and return, via the route indicated in this order. This raiding party will consist of two officers and twenty enlisted men, well mounted and provided with extra horses, and sufficient pack animals to carry the necessary baggage and camp equipage. Pack animals will not be required to carry more than 100 pounds per mule, all superfluous articles being left in the post, including sabers, revolvers, curb bridles, hobbles, nose bags, extra horse equipments and camp equipage of every kind that can be dispensed with. The detachment will be properly rationed and is authorized to obtain necessary supplies en route in the usual form and to carry forty rounds of ammunition per man, with the necessary clothing. It will start from Fort Huachuca at noon on September 17, and will march east of Fort Bowie, west of Fort Grant, touching the limits of the Fort Lowell district, east of Fort Thomas, west of Apache to a point north of that post, should they reach that point without being captured.

The commanding officer will then notify the commanding officer, Fort Apache, by courier, of the presence of his detachment. He will then select an agreeable camp and send to Fort Apache for supplies. After remaining there ten days they will return, passing east of Fort Apache, west of Fort Thomas, east of Fort Grant, and west of Fort Bowie, and east of Dragoon Station, on the Southern Pacific Railroad, to Fort Huachuca. In starting from Fort Huachuca they will be allowed from 12 m. September 17, until 6 a. m. the day following, before being followed by the troops from Fort Huachuca. After 6 a. m., September 18, they will remain in camp until 12 m. of that day, and after that time they will be limited in marches to the hours between 12 m. and midnight of each day. The commanding officer of the detachment will select (within the above described limits) his own line of march and conceal his

men and camps according to his own judgment. Both officers and men of the detachment should fully understand the course to be taken and places of rendezvous, in order to assemble again, whenever it becomes necessary to separate because of close pursuit, or to avoid discovery.

VI. Post commanders will conceal their troops and establish lookouts in such way as to discover, surprise, and capture the detachment above mentioned, if possible, and in any event they are directed to have the raiding party pursued until a fresh command is on the trail. Information concerning the party to be pursued will be communicated with the least possible delay by heliograph, telegraph, or courier, to the different post commanders and to all troops placed to intercept them.

VII. Reports will be made by post commanders by telegraph, to these headquarters daily, of any observation of the raiding party, their movements and efforts made to capture them. The party or any portion of them will be regarded as captured whenever another detachment or command of equal numbers gets within hailing distance or within bugle sound.

The commanding officers at Forts Bowie and Grant will send one officer or non-commissioned officer, provided with two horses each, to accompany the party and act as witnesses in case any question should arise as to the rules to be followed or results. In case of capture the detachment will march to the nearest post and another raiding party be immediately ordered from these headquarters.

Similar movements will be made in the District of New Mexico by a detachment of cavalry from Fort Wingate, N. Mex., moving around Fort Bayard and returning to its station; also one from Fort Stanton around Fort Bayard and return to its station, each going at some time within 10 miles of that post and orders for marching and concealment of each will be the same as those directed for Fort Huachuca.

Care will be taken to avoid breaking down either the troop, horses, or pack animals, or stampeding or injuring any stock or property of citizens.

At the close of the period for field practice, post commanders will call for suggestions from officers and men of their commands, and make brief reports of results and mention any defects in the equipment of their command, or anything that would tend to promote their efficiency.

Post commanders will retain communication with their detachments sufficient to enable them to recall them to their stations without delay in case of necessity.

By command of Brigadier-General Miles:

J. A. DAPRAY,

Second Lieutenant Twenty-Third Infantry, A. D. C., A. A. A. General.

The results attained were most satisfactory, exhibiting skill and enterprise on the part of officers and soldiers, as indicated in the following:

General Orders, }
No. 39.

HEADQUARTERS DEPARTMENT OF ARIZONA,
Los Angeles, Cal., December 24, 1887.

In announcing the close of the autumn field maneuvers directed by General Orders, No. 24, current series, and subsequent telegraphic instructions, the commanding general calls the attention of troops serving in the department to the necessity for more extensive field service, and its importance, as tending to increase the efficiency of the commands. This series of practical military operations, which, in view of their initiatory or experimental nature, have been in the main quite satisfactory, are not without their lessons, and the experience gained by the officers and troops that were engaged in them will be of incalculable advantage in the future.

While the principal object of stationing troops as at present in this department is to hold under surveillance and restraint the thousands of turbulent and well-armed Indians living on the various reservations, and to give prompt and effective protection to the scattered settlements, it is the duty of the military, even while enjoying a condition of perfect peace, to be at all times in condition to render the most effective service, and to make themselves thoroughly familiar with every section of the country in which, at some future time, they may have to campaign.

When emergencies have risen requiring active field service, in some instances requests and reports like the following have been received at these headquarters: "Request authority to employ scouts," "guides," "experienced trailers," "men familiar with the habits of Indians and the topography of the country," etc.; "trails scattered," "lost trail and command returned to station," "misled by guides," etc. A condition of affairs indicated by such applications and reports should not exist. Troops serving any considerable time in a department should themselves excel in an accurate and thorough knowledge of the country, and in skill in the pursuit of an enemy. While garrison duty, target practice, drills, and parades in garrison are in

themselves important, yet there is another service of vital necessity the moment a command takes the field, for which all other service is but preparatory, and the object of these field maneuvers is to develop the skill and judgment of the officer in command as well as the intelligence and individuality of the soldier.

The element of strength possessed by the Indians that is most difficult to contend with is their skill in rapidly passing over a country, noting every feature of it, and observing their enemies without exposing themselves or being discovered. This is the result of following the life of a hunter and warrior for generations. Possessing more intelligence, the same art can be acquired with careful practice by white men with almost, if not quite, equal success. While this field duty, which has been directed at the most favorable and agreeable season of the year for marching and camping, is intended to practice the troops so as to enable them in times of actual hostility to make the country untenable for a savage enemy, yet, at the same time, it is an experience from which can be obtained instruction that will be invaluable to the officers in case they should be suddenly called upon for service in civilized warfare, for the same officers that may in this practice or in Indian campaigning be followed by a small detachment of troops are liable to be suddenly required to lead a division or corps of troops against a civilized enemy.

The services of the cavalry during the late war was in developing the enemy's position and strength, harassing their flanks, frequently making a complete circuit of the opposing army and often operating entirely in the rear and upon the lines of communication, capturing and destroying the depots and supplies of the army against which they were contending; and no better school of practice can be furnished, especially for young officers, than that inaugurated by the present system of field practice.

There has been no disturbance of the peace worthy of mention in this department within the past year. The slight disturbance reported at San Carlos just prior to the rendering of my last annual report was quickly suppressed by the troops, and the offenders arraigned before military and civil tribunals; one of them is now under sentence of death, and the others are serving sentences of from two to twenty years' imprisonment. A feeling of confidence and security prevails throughout the department, and persons may travel in any section unarmed and without fear of molestation by Indians.

Owing to the condition of affairs on the Navajo Reservation, I deemed it advisable to concentrate as much cavalry as possible at the adjacent post, Fort Wingate, the garrison of which now consists of five troops and headquarters of the Sixth Cavalry. It should be enlarged with as little delay as possible, to accommodate a regiment of cavalry. The condition of that powerful tribe of Indians may at any time become such as to make necessary the presence of a large military command. Although practically at peace, the Navajos are as well equipped for war as any other tribe of Indians in this country.

In regard to the Indians in the department I deem it necessary to refer especially to the condition of those on the White Mountain Reservation. Although nothing indicates any immediate rupture of the peace, yet the same condition of things that existed there one year ago prevails now—the same threatening elements exist, which will sooner or later lead to serious disturbance in Arizona. The greater my experience with and observation of those Indians the more strongly I am of the opinion expressed in my report of a year ago. The congregating of different tribes of Indians at that place was, in my judgment, a most serious mistake, and from information that has come to me I think it was done in the interests of persons who desired to obtain possession of the Indian land, and for the benefit of speculators and Indian plunderers. It has already caused several Indian wars, resulting in the deaths of hundreds of innocent people and the cost of millions of public money, to say nothing of the destruction of private property. The holding of large tracts of territory remote from civil government and amassing thereon large bodies of disaffected Indians, taken, against their will and entreaties, from the homes

which nature had designed for them, has resulted in serious disturbances wherever it has been tried, notably in the Indian Territory and the great Sioux Reservation. The White Mountain Reservation will not be an exception. Of all the acts of injustice coming under my notice I have never known of one more flagrant than this. To force well-disposed Indians to live in an unhealthy climate, where there is neither shelter nor water fit to drink, is, in my judgment, most unjust and unwise, and a hardship as well to the troops who are required to be stationed in their midst to compel the Indians to die peaceably. When I made recommendation last year concerning the removal of some of the Indians from the San Carlos Reservation to the Fort Verde Reservation opposition was raised to it by some cattle men interested in maintaining a cattle range on part of the Government domain in the Verde Valley, and some of the settlers in that locality were induced, principally in the interest of four men, to sign a petition opposing the transfer, under misapprehension and through false representations. Some of the same persons have subsequently, of their own accord, signed a petition to have the Indians removed as was recommended.

The Mojaves, Yumas, and Tontos are well disposed, and it has been their prayer to every commissioner and prominent official who has visited them to be returned to their native country. Part of them are anxious to be returned to the Colorado River, to join others of their own tribe at Yuma and Mojave, while others desire to go to the vicinity of their former homes on the Fort Verde Reservation. To send them there would not only be an act of humanity, but also one of wise administration. The White Mountain Indians that were formerly forced to the Gila Valley declared that they would rather die than live there. They were told that they could not have rations if they did not remain, and they said that they would go back to their own country if they had to starve. They did go back and for years they have been making a most heroic struggle to live without receiving rations from the Government. They cut wood and hay for Fort Apache, and I have seen their women go out long distances, cut grass with knives, and pack it on their backs to the posts for small sums of money. To force a people of that intelligence and industry to live in such a place as the Gila Valley is, in my judgment, unjust and cruel. If they were dispersed as recommended by me (which would appear to be in conformity with the policy of the Government, as indicated by recent acts of Congress), the danger of serious outbreaks and disturbances in the future would be avoided, and much of that reservation, as large as some of the States, would be thrown open to miners and settlers. The loyalty of the Indians would be preserved, and it would not only be beneficial to the people of Arizona, but would result in great savings to the Government.

Attention is also invited to the fact that the ration of food furnished by the Government to the Indians at San Carlos has been reduced, and the reason assigned is the high cost of articles of food there, and they are compelled this year to live on 150,000 pounds of beef and 74,259 pounds of flour less than they received last year. Notwithstanding the hardship to which these Indians have been subjected, they have in the main been peaceable and industrious, and have raised crops to support themselves to some extent, but the patience and forbearance of an Indian are not without limit, and as long as they are compelled to remain in that condition just so long will there be danger of serious outbreak, and it would seem needless to argue that such a condition of things should not be permitted to continue.

That this is the judgment of the officers in immediate command I invite attention to the following letter of the acting Indian agent, with indorsement of the commanding officer of the troops at San Carlos:

UNITED STATES INDIAN SERVICE,
San Carlos Indian Agency, August 17, 1888.

SIR: I have the honor to submit the following for the consideration of the honorable Commissioner.

About the middle of June, 1888, the leading chiefs of the Mojave, Yuma, and Tonto Indian tribes, who live in harmony on this reservation, came to my office and requested that I obtain permission for them to visit Washington for the purpose of seeing the President and the Commissioner of Indian Affairs. I promised them I would look into the matter.

Some time later, or about the 6th of July, there came to the agency about one hundred and fifty of the above named Indians, mounted and unarmed. They stated that their medicine men had seen a great deal and wanted to tell me about it. I directed them to return to their camps and ordered the leading men to then come to me in person for a conference, which they did, with their head medicine men. The sole object of their conversation or talk was their removal to the Verde country from which they originally came. The three tribes above mentioned, numbering some thirteen hundred and ninety-five Indians, men, women, and children, arrived here from the Camp Verde Indian Reservation and were turned over to John P. Clum, the Indian agent at that time, on the 10th day of April, 1875.

From the date of their arrival, over thirteen years ago, they have never been satisfied and have always been anxious to return to the country from which they were removed. In my opinion, the causes of their dissatisfaction are just and an effort should be made to eventually remove them from this section of the country. The only places suitable for agricultural purposes are the bottoms of the Gila and San Carlos Rivers. The three tribes desirous of being removed occupy small farms along the Gila River. The river bottoms are from a quarter of a mile to a mile in width, and on each side extending for miles there is nothing but arid mesa lands without water or trees. There is no wood to speak of on the river banks, and what is used has to be cut on the mountains some miles from the river. The water of the river is salty and sulphurous to the taste and on exposure to the sun in a vessel turns to a black color. The water is very warm and fails to appease the thirst. These tribes are compelled to occupy the low lands bordering on the river, and the consequences are that sickness has made sad havoc with them.

The water of the San Carlos River is healthy, but all the farming lands are occupied by the San Carlos tribe of Indians, comprising 1,163 people at the time of taking the census in July of the present year. They are the native tribe of Indians and are a separate and distinct tribe from those who desire to leave for the Verde country. They are satisfied with the country, occupying as they do the only healthy part, and so are the White Mountain Indians living at or near the Fort Apache part of the reservation.

The placing of the different tribes of Indians so near to each other on this reservation has been the cause of a great many of the disturbances of past years, and a great deal may be obviated in the future by separating the tribes, and it is what the Indians want. There are innumerable feuds existing between the bands, and disturbances would be less in the future should the tribes be separated; and furthermore, they could be more easily controlled.

In view of the above facts I would most respectfully request that land for a reservation for the three tribes of Indians first mentioned be set apart in some healthy part of Arizona, should the land from which they originally came not be available at the present time for a reservation.

Very respectfully, your obedient servant,

JOHN L. BULLIS,
Captain Twenty-fourth Infantry, Acting Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS, *Washington, D. C.*

[First indorsement.]

SAN CARLOS, ARIZ., *August 20, 1888.*

Respectfully forwarded to the assistant adjutant-general, Department of Arizona, most earnestly urging favorable consideration of the within recommendation of Captain Bullis.

I have been in command of the troops at San Carlos since March 22, 1888, during which time I have had ample opportunity of observation. I heartily indorse all Cap-

tain Bullis says about the deep-seated discontent existing in the Mojave, Yuma, and Tonto tribes. Could the different tribes be separated, with a distance of 100 or more miles between them, I believe they might be more easily controlled and more rapidly advanced toward civilization. Situated as they now are there are too many Indians of hostile instincts towards each other congregated here. They fear each other, are always on the alert, and ready to defend themselves or to attack, as occasion offers.

A sort of armed neutrality exists. They are all ready for war, and but for the restraining influence exercised by the presence of the large military force at the agency, I have no doubt actual hostilities between the different tribes would be the rule.

The amount of land bordering upon the Gila River susceptible to irrigation is not very great, and I think of nature not to bear cultivation for very many years. The farms are too small to produce enough to support the families without Government aid. The water for irrigation, I am informed, grows less each year as the country upon the upper Gila becomes settled.

If these Indians could be separated as suggested, this garrison might be materially reduced or entirely done away with.

Aside from the great expense to the Government in supplying the Indians and troops at San Carlos, it inflicts actual hardship upon the latter to keep them in this terrible climate without adequate shelter. There is not a single building at the post. Troops and stores are under canvas during the entire year, and the suffering from the intense heat that prevails throughout almost the entire year can not well be understood without actual experience.

I wish to emphasize what Captain Bullis says about the Gila River water, and from which stream our supply is drawn, by saying it is absolutely vile.

SIMON SNYDER,
Lieutenant-Colonel Tenth Infantry, Commanding Post.

A fair idea of the place where these Indians have been forced to remain may be found in the following extract from the report of a board of officers recently ordered by the division commander under authority of the Secretary of War.

Extract from proceedings of a board of officers convened at San Carlos, Ariz., pursuant to Special Orders No. 44, Headquarters Division of the Pacific, current series.

The board then proceeded to examine the ground at San Carlos, and find San Carlos to be located on the Gila River near the junction of the San Carlos River with this stream. The present camp is located on the first bench of land above the Gila River, which is only about 30 feet above the same, and all of this bench has been used for a period of ten or more years as an Indian camping ground and possesses so many of the features to be avoided as to entirely preclude the possibility of locating a new post on this particular ground or bench. Northwest of the present camp the ground rises about, say, 200 feet to a mesa, extending between the Gila and San Carlos Rivers. This mesa possesses the single feature for a military post in having only sufficient ground upon which to place buildings. The mesa is nearly level and throughout its entire extent is covered with stones, a light, friable soil, utterly bare of vegetation excepting a few mesquite bushes—and entirely waterless. The question of supplying a post with water is a very serious one and would either have to be taken from the San Carlos or from the Gila Rivers, and in either case would have to be conveyed a distance of 1 to 3 miles. The San Carlos River is at this date dry, excepting in small holes in the bed of the stream. Indian camps and villages are located on this stream throughout its entire length. The Gila River is lined with Indian camps and villages on both sides above San Carlos to the edge of the reservation for 25 miles—and beyond, as far as the river runs through valleys, the lands are occupied by settlements for hundreds of miles. Under these circumstances the water in these rivers is becoming more and more impure as the years go on. The water in both of these streams is not potable—to describe it in common terms it is bad; it is odorous, affects the breath after drinking, and leaves a disagreeable, offensive odor on the body after bathing. This refers to water as fresh as can be had. At present the one well at the Indian agency is about 90 feet deep, and the water from it possesses the above-mentioned objectionable qualities in a greater degree than the surface water. There is no grazing ground within 12 and no wood within 20 miles. Without going into a lengthy report the board is convinced that San Carlos does not possess a single feature to recommend it for the location of a military post, and in the opinion of the board it possesses so many objectionable

features for a post that they do not hesitate to say that it would be unrefined cruelty to permanently garrison this place with United States troops.

C. E. COMPTON,
Colonel Fourth Cavalry.

R. H. ALEXANDER,
Lieutenant-Colonel and Surgeon, U. S. Army.

SIMON SNYDER,
Lieutenant-Colonel Tenth Infantry.

EDWARD MOALE,
Major First Infantry.

I regret that I can not agree with the board in all of its recommendations. The only point of difference is, however, that I believe the site at Gilson's well is a better place for the location of a military post than Holmes's well.

D. D. WHEELER,
Captain and A. Q. M.

Regarding desertion from the service I consider it a matter of so much importance that I will embody the following extract on the subject from my report of last year, to which I again invite attention:

[Extract.]

* * * The fact that nearly 15,000 men have deserted from our army within the last five years, indicates very positively that there is something radically wrong in our system of army administration.

The principal causes appear to be:

(1) Defective system of enlistment by which men of doubtful or unknown character are enlisted in the service.

(2) Insufficient quantity of food, and defective methods of furnishing the same.

[Concerning food, one of the most competent officers in the service, after over twenty years' experience, voices the opinion of many of the most efficient commanding officers, and reports as follows:

"I desire, in this connection, to add my protest to the many already entered against this fraud upon the soldier of the issue of salt pork in this climate. The men will not eat it unless compelled by hunger, and it is only salable to prison authorities for the subsistence of convicts."]

(3) Amount of labor and hard service required other than in the line of military duty.

(4) The very defective method of administering discipline and punishments, by which the evil-doers are conveyed, at great expense, thousands of miles to a military prison at Fort Leavenworth, Kans., where they are better housed and fed, leaving the dirty and disagreeable work of the military posts to be done by the well-behaved and faithful soldiers who remain at their posts of duty.

(In this connection I agree with the inspectors of the Army, who have recommended the abolishment of the Leavenworth Military Prison, as I am satisfied it does not meet the purpose for which it was originally intended and that military prisoners can be much better employed in the police duties at the military posts than in the manner they are now employed at that prison, and this, I am satisfied, would result in the saving of \$100,000 to the Government annually.)

(5) The doubtful prospect of advancement, which threatens to be still more limited in the future, of those enlisted men who are really worthy and deserving of such recognition.

(In this connection I renew the recommendation made by me two years ago that the enlistment be for three years, instead of five, and re-enlistment of good soldiers in the same troop, company, regiment, or department for one year.)

(6) Small pay for both non-commissioned officers and privates.

I earnestly recommend that those officers who serve twenty years in one grade be promoted by act of Congress. This may be considered special legislation, but I would recommend that it be made general or to apply to any officers thus unfortunate, and for all time. Those officers have been doing the laborious and dangerous service of the Government; their services are identified with the progress of the country; they have been obliged to support their families at stations remote from civilized communities, and in many instances are obliged themselves to educate their children, and are, under every consideration, entitled to the promotion recommended.

I also renew my recommendation of last year for the three-battalion organizations for the infantry regiments, believing that it will add to the efficiency of the service and should not be unnecessarily delayed.

Reports* of the officers of the general staff are herewith inclosed, together with the report of the commanding officer, district of New Mexico.

Very respectfully, your obedient servant,

NELSON A. MILES,

Brigadier-General, U. S. Army, Commanding.

The ASSISTANT ADJUTANT-GENERAL,

Headquarters Division of Pacific, San Francisco, Cal.

REPORT OF COLONEL GRIERSON.

HEADQUARTERS DISTRICT OF NEW MEXICO,

Santa Fé, N. Mex., August 10, 1888.

SIR: In compliance with instructions of the department commander, I have the honor to submit, at this time, the following annual report of military affairs and of matters pertaining to Indian tribes in this district, with the usual abstracts, marked from "A" to "E," inclusive.*

The removal of the fraudulent settlers and other trespassers, with their large herds of cattle, sheep, and other stock, from the Jicarilla Indian Reservation, under instructions received from the War and Interior Departments, was quickly and successfully accomplished under my direct supervision in the early part of last October, and a full report in regard thereto at once forwarded to department headquarters.

Soon thereafter a detachment of Troop G, Sixth Cavalry, from Fort Union, N. Mex., under command of First Lieut. J. N. Glass, was ordered to the Jicarilla Reservation to prevent any of the ejected squatters from returning and to compel the so-called bona-fide settlers who were permitted to remain to confine themselves and their stock to the limits of their respective claims. This detachment was relieved in the early part of December, 1887, and returned to Fort Union after accomplishing the duty in a very satisfactory manner.

During the winter the heavy snows prevented the ejected squatters from trespassing upon the Indian lands, but on the approach of spring many of them again returned to the reservation, planted crops thereon, and, in some instances, became insolent and abusive to the Indians and agency employes, threatening them with violence while merely passing to and from the Indian camps and Government saw-mill, until it became necessary, on May 22 last, to send another detachment of troops from Fort Union, under command of First Lieut. J. R. Cranston, Tenth Infantry, to the reservation to again remove such fraudulent squatters as had returned and to prevent outrages upon the Indians or further encroachment upon their lands. Learning that the troops were again advancing towards the reservation, many of the fraudulent squatters, fearing a conflict with them, abandoned their claims, and those remaining were, upon arrival of the troops, promptly removed and duly admonished not to return.

The recent survey made of the boundaries of the reservation developed the fact that a few squatters who had not been molested or removed and whose improvements had not been appraised were located just within the limits of the reservation, and as the Ute agent, recently

* Omitted.

appointed, even if favorably inclined towards the Indians, would be unable to cope with the powerful combination opposed to the settlement, improvement, and progress of the Jicarillas, I urgently recommended that Special Agent H. S. Welton, who is so thoroughly informed in regard to the situation and every way qualified for the duty, be ordered back to appraise those claims in order that a complete adjustment be effected and the entire reservation restored to the Jicarillas. This request was favorably considered by the Interior Department, and Captain Welton, with whom I recently conferred at Dulce Station, N. Mex., is now there, energetically engaged, endeavoring to bring about the desired result with the least practicable delay.

I again invite the attention of the proper authorities to the urgent necessity of taking possession at once of the places now held by Gabriel Lucero and Eugenio Gomez, both of which are indispensable to the Indians, as together they form the gateway and are the only practicable entrance to the reservation, without which it would be rendered utterly worthless for the purpose for which it has been set apart. Their occupation by the Interior Department for the use of the Indians and their agency would only disturb the two persons referred to, and they are merely squatters on the public domain, to which they have as yet acquired no valid title and nothing beyond simply a right of preference above those who might hereafter attempt to locate thereon in the event of said land being opened to entry and settlement.

Manuel Garcia, who lives with his son-in-law, Eugenio Gomez, has no just claim against the Government, and even if he had his conduct has been such as to render him totally unworthy of any consideration. He is the man who claims to be working under the advice of the Hon. Antonio Joseph, to whom he looks for assistance to substantiate the fraudulent claims he and his son, Matias Garcia, are attempting to trump up against the Government.

As indicated in my report of October 17, 1887, those who are antagonistic to the permanent settlement of the Indians have succeeded in securing the necessary legislation to negotiate for the removal of the Utes, and the same powerful influence will be exerted to the utmost to cause the removal of the deserving but almost friendless Jicarillas. The real instigators of these projects, however obscured or disguised, are stock syndicates and other monopolies, and it will require prompt action on the part of the Government to deal with and thwart their designs.

It is useless to expect that the so-called bona-fide settlers will affiliate or live in harmony with the Indians upon whom they have, as can be attested by the authorities at the subagency, committed frequent brutal outrages that even the troops, under present conditions, are unable to entirely prevent. Without the presence of troops serious trouble will undoubtedly arise between the two factions and the reservation should either be given up to the Mexican squatters and the white men who control them or reserved entirely until suitable lands can be allotted thereon to the Indians in severalty. By permitting the squatters to remain within the limits of the reservation, where they endeavor to appropriate all the best arable lands, so necessary for the Indians, will result in constant friction and quarrels and afford an opportunity for unscrupulous persons to carry on an illicit traffic in whiskey and other articles which would prove destructive to the true welfare of the Indians. They are, under the most aggravating circumstances, manifesting a commendable amount of zeal and patience and would, under judicious management and development of the resources of their reser-

vation, soon become self-sustaining, a law-abiding and prosperous people. They still have faith in the ability of the authorities to secure for them the quiet homes to which they are, as helpless wards of the nation, so justly entitled.

After a personal and thorough examination of the structures and other improvements on the Jicarilla Reservation I consider \$6,000 a liberal estimate of the value of those which were made there prior to the executive order of February 11, 1887, setting it apart for the Indians. This sum should not deter the Government from a proper settlement of those apparently just claims, considering the benefits to be derived in securing a permanent abode for a people who have virtually, for over a quarter of a century, been wanderers without a home or country.

It is unfortunate that the Jicarillas are attached to the Ute Agency; they number nearly eight hundred souls and are greatly in need of a separate agent, who could devote his time exclusively to their interests, and would, in the face of all opposition, be fearless and conscientious in the discharge of his duty. The time of the new agent of the Utes is now occupied with the proposed removal of those Indians to Utah, and he has not the opportunity to give proper attention to the wants of the Jicarillas.

I trust that the recommendations herein set forth will meet the approval of the proper authority, and that such prompt and decisive action will be inaugurated as will effectually adjust these important matters at the earliest possible date.

With reference to the Navajos it is very gratifying to be able to state that no serious troubles have occurred during the present year between any of that tribe and citizens, notwithstanding unrestricted traffic in whisky, arms, and ammunition is still carried on by traders and disreputable characters, who infest the borders of their reservation.

Upon the restoration of the strip of land bordering on the San Juan River, belonging to their reservation, the serious difficulties which had so long existed in that section of the territory ceased immediately, and quiet has prevailed in that vicinity since that date. A detachment under command of Lieut. A. B. Scott, Thirteenth Infantry, was held there until November, 1887, when it was withdrawn to Fort Wingate; since then there has been no necessity for troops in that portion of the Navajo country.

Early in June two Navajos stole twelve sheep in the vicinity of Fort Wingate, which were soon recovered by a detachment of Troop K, Sixth Cavalry, under command of Capt. J. B. Kerr, of that regiment, and the thieves subsequently arrested and delivered to the civil authorities to await the action of the grand jury of Bernalillo County, N. Mex.

In the spring a special agent of the Interior Department was sent to the Navajo country to investigate the condition and wants of the Navajos living off their reservation, with a view of adopting some measures which would result in causing those Indians to return and confine themselves and their stock more strictly to the limits of the territory assigned them. Several months, as I understand, were spent in this investigation and subsequently a council, held at Fort Defiance Agency, with the chiefs and head-men of the tribe, to ascertain their views on the subject, and obtain any proposition they might desire to make that would tend to secure their co-operation to accomplish this object.

Being at that time absent on court-martial duty at Fort Huachuca, Ariz., I was unable to attend the council referred to and of course

have no personal knowledge of what took place or the conclusions arrived at.

I have, however, during the past two years given this subject a great deal of thought, and have traveled over a large part of the country now occupied by the Navajos in order to become better acquainted with its character, the true condition of the tribe, and their real necessities. From all the information obtained, considering that the Government has permitted the Navajos to live outside the limits of their reservation, and that at the present time it is absolutely necessary that they should do so to obtain sustenance for themselves and their immense herds of stock, it is evident that the most practicable method to bring about the result desired by the Government, and at the same time properly satisfy the wants of the Indians, will be to change the boundary lines of their reservation, as follows:

Beginning at a point in the center of the channel of the San Juan River, 8 miles, more or less, in an easterly direction from the present northeast corner of the Navajo Reservation, which is in the SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ of Sec. 13, T. 29 N., R. 14 W. of the principal meridian of New Mexico, said point being the center of the channel of said stream opposite the mouth of the Cañon Gallegos; thence following the center of the channel along its western course to its junction with the Colorado River, in Utah, leaving out the lands now embraced in the Navajo Reservation, which are north of the San Juan River in T. 29, 30, 31, 32, N., R. 16, 17, 18, 19, 20, and 21 W. (unsurveyed) of the principal meridian of New Mexico; thence down the Colorado River to the mouth of the Little Colorado; thence up that stream through Yavapai County, crossing the west boundary of Apache County, Ariz., and into and through the latter county to a point where said river crosses the fifth standard north of Arizona, between T. 20 and 21 N., R. 16 E.; thence with a general approximate course of N. 70° E., to a point where the third guide meridian west of the New Mexico principal meridian (between the R. 18 and 19 W.) crosses the present southern boundary of the Navajo Reservation, adopting said general course and diverging from it to such natural objects as courses of creeks, arroyos, and southern or southeastern mesa sides as may be encountered along the line; thence east along said boundary line beyond the present southeast corner to a point which is about 14 miles east of said corner or in T. 17 N., R. 11 W. of the principal meridian of New Mexico; thence north to a point near the "pumps" of the "Carlisle Cattle Company" in the valley of the Cañon Gallegos, and diverging from it to such natural objects as water-courses, arroyos, and eastern mesa sides as may be encountered; thence down said cañon to a point in the center of the San Juan River opposite the mouth of said Cañon Gallegos where it opens into the channel of that river, said point being the place of beginning. (See map* herewith inclosed.)

In connection with this subject, and to have a clear understanding of the present condition of affairs, it is necessary to take into consideration the following facts, that, although there is a large extent of territory in the reservation as above proposed, its enlargement is a small matter when the general character of the country is fully understood. It is what might truly be called a desert, situated as it is on the high arid divide of the continent, at an altitude ranging from 6,000 to 10,000 feet above the level of the sea, with comparatively a small amount of land within its limits susceptible of cultivation on account of the great scarcity of good permanent water, nearly all of that to be found outside of the mountain ranges being strongly impregnated with alkali, unsuitable for irrigating purposes, and not good even for stock.

* Omitted.

The great object gained by the proposed reservation is the fact that nearly three-fourths of the entire boundary line is marked by immovable and natural objects well known to the Indians, which can not be misunderstood by any one, and the additional lands included are partly compensated for by throwing out of the present territory now assigned to the Indians a tract north of the San Juan River. The character of the additional lands are much the same as those heretofore assigned to the Navajos; a great scarcity of water exists throughout the whole, and the few springs to be found are already in possession of the Indians. Few people worthy of consideration would be disturbed by this enlargement. There is, however, a small Mormon establishment called Tuba City, northeast of the Little Colorado River in Arizona, consisting of about ten men and thirty women, with the usual progeny, but I presume it would hardly be admissible for the Government to recognize such an institution within the reservation set aside for the Navajos, the example of such a settlement would not improve the morals nor add to the welfare of those Indians. At present at least one-third and probably one-half of the Navajos are living outside their reservation, but most of the chiefs and head-men would be within the limits of the proposed extension. The main strength and influence of the tribe would therefore be secured to aid the Government in causing the return of the outside Indians and the few that would remain away could be required to take up lands in severalty under section 4 of the allotment act.

Under all the circumstances, to attempt to force the entire tribe of Navajos within the limits of the present reservation would be utterly impracticable, and any attempt to accomplish such an undertaking would meet with opposition of a most serious nature, and be disastrous to the interests of the people of the two Territories—New Mexico and Arizona.

The Mescalero Indians have been remarkably quiet during the year, and are advancing in the pursuits of industry toward civilization. It is probable that the time is not far distant when they can be advantageously allotted lands in severalty from the most suitable for cultivation within the limits of their reservation, which would tend to break up their tribal relations and eventually open for settlement a considerable portion of the territory now held by them without detriment to their interests.

The attention of the department commander is again invited to the propriety of utilizing the large military reservation of nearly 10,000 acres, surrounding Fort Selden, N. Mex., by the erection thereon of a permanent post, ample in its dimensions for a regiment, and in connection therewith a general depot of all army supplies, on the military Reservation at Santa Fé, N. Mex., on account of their general fitness and situation, considered in relation to the frontier line between the United States and Republic of Mexico, and central position on the continent midway from the Gulf of Mexico and Pacific Ocean. The great value of these reservations for the purposes indicated, if their peculiar advantages are fully understood, can not be well overestimated, and the future will develop the fact that, for reasons plainly discernable, they will eventually become of marked national importance, and I therefore urgently recommend these measures to the careful consideration and favorable action of the War Department.

The strength of the military force, the changes of troops to, from, and within the district of New Mexico, and the operations of the quartermaster's and subsistence departments are shown by inclosed abstracts.*

* Omitted.

Notwithstanding the many changes that have occurred in the district during the past year, the administration of affairs at posts has been conducted in a satisfactory manner by the various commanding officers.

The important duties devolving upon the officers of my staff, Capt. John J. Clague, commissary of subsistence; Capt. John W. Pullman, assistant quartermaster; and First Lieut. Charles H. Grierson, adjutant Tenth Cavalry, acting assistant adjutant-general, have been performed with energy and ability, and I take this occasion to express my appreciation of the valuable services they have rendered the Government during the past year.

Very respectfully, your obedient servant,

B. H. GRIERSON,

Colonel Tenth U. S. Cavalry, Commanding.

The ASSISTANT ADJUTANT-GENERAL,

Department of Arizona, Los Angeles, Cal.

REPORT OF BRIGADIER-GENERAL GIBBON.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., September 3, 1888.

SIR: I have the honor to submit the following report of the operations in this department during the past year.

CHANGES OF TROOPS.

In November last the two companies of the First Artillery were relieved from duty at Fort Canby, at the mouth of the Columbia River, removed from the department, and the post abandoned; and Company I, Fourteenth Infantry (Captain Davis), was relieved from duty in the department to take station at Fort Leavenworth.

In June four troops of cavalry from Fort Walla Walla, one troop of cavalry and three companies of infantry from Fort Sherman, and one troop of cavalry and four companies of infantry from Fort Spokane were ordered into the field, to concentrate at Cottonwood Creek, south of Chewelah, and scout that region east as far as Clark's Fork, west to the Columbia River, and north as far as the national boundary. Copies* of the instructions issued for these movements and the objects of them are herewith inclosed.

The several columns left Forts Walla Walla, Sherman, and Spokane, respectively, on the 6th, 10th, and 10th of June. The two columns from Forts Walla Walla and Sherman reached the rendezvous within an hour of each other on the designated day, and the Fort Spokane column on the next day, having been delayed by bad roads and rainy weather. The weather during the operations was unusually inclement, heavy rain falling nearly every day.

Colonel Carlin in his report* (copy inclosed) speaks in high terms of the conduct of both officers and men in the performance of their duties during the expedition. (Map* of the routes inclosed.)

COURTS-MARTIAL.

The court-martial service in the department continues to work satisfactorily, but the restrictions placed upon the details by superior au-

* Omitted.

thority interfere somewhat with the proper organization of the courts where it is desirable to avoid courts of justice degenerating into mere forms. To these restrictions I have not in all cases been able to conform, the facts not justifying the statement that a full court could not be convened without manifest injury to the service. Restricting the details of general courts to the officers serving at any one post so long as the number there are sufficient for the minimum number (five), is not in conformity to the law on the subject, nor is it conducive to justice nor discipline. It does make some reduction of money expended in mileage, but such economy should be exercised in every other department but that of justice, and I venture to express the hope that the restrictions placed on the details of general courts-martial will be removed. In this connection I invite attention to the fact that the expenditure for mileage in this department has for the past fiscal year been reduced by more than \$2,200 below what it was the preceding year.

The number of trials by general courts-martial is still further decreased this year by fifteen, and by garrison courts by one hundred and eighty-seven. The largest percentage of trials by general courts was at Vancouver Barracks; the smallest, at Forts Walla Walla and Sherman. Fort Klamath had no trials.

Vancouver Barracks (forty-six) and Fort Sherman (twenty-eight) had the largest percentage of trials by garrison courts, and Fort Klamath had no trials.

DESERTIONS.

I am gratified to be able to report a considerable reduction this year in the number of desertions, being forty-two less than last year. This, however, is a mere incident, and indicates simply that the worst elements sent to us from the recruiting service have abandoned the service. The causes for desertion still remain. The selection of a better class of men as recruits and precautions against the re-entry of the worst class into the service would probably decrease the evil. In connection with this matter, I respectfully invite attention to the recommendations made in my last annual report regarding an indelible badge of honor for every officer and soldier in the military service, by means of which every good soldier would be able to re-enter the Army, and every bad one kept out.

The greatest number of desertions occurred at Vancouver Barracks (twenty-nine), more than one-half of which (seventeen) were from Light Battery E, First Artillery, the number from it being equal to the number from the whole of the Fourteenth Infantry, and one more than from the whole of the Fourth Infantry. The largest number of desertions was from the Second Cavalry, eight troops of which had double the number (thirty-four) of the Fourteenth Infantry (seventeen); Company G, Fourteenth Infantry (Warren's), had no desertions.

REGULATIONS.

The great want of a proper system of regulations is felt in the Army more and more every day. The almost daily modifications and additions to our present regulations have become so numerous that it is with difficulty the rule of action upon any particular subject can be discovered. In consequence, the most trivial questions have to be forwarded to the Adjutant-General's Office for decision.

So far as I am able to discover, there is no regulation requiring commissioned officers on duty with troops to wear the prescribed uniform.

SMALL POSTS.

I respectfully renew the recommendation heretofore made for the abandonment of the two small posts in this department, Forts Townsend and Klamath, more especially the latter, which is isolated, expensive, and unnecessary. The Indians in the vicinity are agriculturists, peaceful and industrious. So far as Fort Townsend is concerned, aside from its smallness, is its position, which is, under existing circumstances, faulty.

In the not very distant future it may become necessary to provide for the defense of the Puget Sound region. For deep-draught vessels there are two entrances to these waters; one, the main channel between Port Townsend and Admiralty Head, practicable at all times; the other, at Deception Pass, some 25 or 30 miles to the north. This is a very narrow, crooked channel, with plenty of water at all times, but passable only at high or low tides, the waters at other times rushing through with torrent-like velocity. These two entrances could be defended by a good system of iron turrets and torpedoes. Many of the so-called military reservations on the waters of the Sound are not reserved from settlement at all, having been either sold by the Government since they were declared, or left in the possession of settlers who occupied them at the time they were "withdrawn." Should Fort Townsend be abandoned, it might be advisable for the Government to secure land at as early a day as possible suitable for the accommodation of a large garrison, which in case of necessity would be available at any point on the Sound waters. The best strategic position would be somewhere in the vicinity of the junction of the bodies of water leading from the two entrances—Admiralty Inlet and Possession Sound. The particular point selected should be as near as possible to some central point of transportation lines.

Lake Washington, a large land-locked body of deep water, and Lake Union, of similar depth but smaller in extent, both capable at comparatively small cost of being connected with the waters of the Sound, will doubtless at some future day be utilized for naval purposes.

NEW QUARTERS.

Two new sets of quarters, to accommodate the present staff officers, are required at department headquarters. Two of the staff are now occupying quarters at the post proper, and these are needed by the garrison in order to vacate old sets which are in a very dilapidated condition and so close to the new quarters as to increase very much the danger from fire.

REPORTS.

The reports* of the various department staff officers are appended. I cordially concur in the recommendation of the acting judge-advocate that some means be adopted whereby a suitable supply of legal books of reference be furnished his office.

I am, sir, very respectfully, your obedient servant,

JOHN GIBBON,

Brigadier-General, Commanding.

The ASSISTANT ADJUTANT-GENERAL,
Division of the Pacific, San Francisco, Cal.

* Omitted.

REPORT OF MAJOR-GENERAL CROOK.

HEADQUARTERS DIVISION OF THE MISSOURI,
Chicago, Ill., September 28, 1888.

SIR: In compliance with the instructions of the Major-General commanding the Army, communicated in your letter of the 6th instant, I have the honor to submit the following report:

OPERATIONS OF THE YEAR.

With the exception of the prompt suppression of the Crow Indians by forces under the command of General Ruger, the use of troops during the past year has been chiefly confined to operations designed to prevent possible trouble which might result from the restive and excited state of feeling which has at times prevailed among some of the Indian tribes within the limits of the division.

For the detailed account of these measures I beg to refer to the reports of the several department commanders, which are submitted herewith:

TROOPS.

Transfers of troops to and from the division, since October 1, 1887, are shown in the following table:

Date of arrival or departure.	Command.	From division.	To—	Authority.
Nov., 1887	Company I, Fourteenth Infantry.	Pacific.....	Infantry and Cavalry School.	Letter A. G. O., Nov. 3, 1887.
June, 1888	Headquarters, Thirteenth Infantry, and Companies A, B, C, D, E, F, G, H, and I.	.....do.....	Department Missouri.	G. O. 20, A. G. O., April 13, 1888.
Do.	Twenty-fourth Infantry	Missouri.....	Division Pacific..	Do.

Transfers of troops between departments, and within the limits of the division, since October 1, 1887, are shown in the following table:

Date of arrival.	Command.	From department.	To department.	Authority.
Nov. 8, 1887 ...	Companies F and K, Sixth Infantry.	Platte ...	Missouri..	G. O. 6, Division Missouri, Oct. 20, 1887.
May, 1888	Sixteenth Infantry	Texas ...	Platte	G. O. 23, A. G. O., Apr. 13, 1888.
June, 1888	Fifth Infantry	Dakota ...	Texas	Do.
Do	Companies A, B, C, D, E, and G, Sixth Infantry.	Platte ...	Missouri..	Do.
Do	Twenty-second Infantry....	Missouri..	Dakota ...	Do.
July, 1888	Troops A, B, E, F, H, I, K, and L, Seventh Cavalry.	Dakota ...	Missouri..	Do.
Sept. 1888	Eighth Cavalry	Texas	Dakota ...	Do.

The number of troops in the division, at the latest date for which returns have been rendered, is 13,045. The troops are distributed as follows :

Department.	Commanded by—	Officers.	Enlisted men.	Total.	Indian scouts.	Total.	Genl. ser. clerks and mess'gra.	Total.
Texas ...	Brig. Gen. David S. Stanley.	144	1,732	1,876	20	1,896	15	1,911
Dakota ..	Brig. Gen. Thomas H. Ruger.	282	3,556	3,838	26	3,564	17	3,881
Missouri.	Brig. Gen. Wesley Merritt.	266	3,368	3,634	88	3,722	16	3,738
Platte ...	Brig. Gen. John R. Brooke.	286	3,211	3,497	2	3,499	16	3,515
Total ..	.....	978	11,867	12,845	136	12,981	64	13,045

This force represents 175 companies of infantry, 75 troops of cavalry, and 4 batteries of artillery. The skeleton character of our Army is clearly shown by these figures. The enlisted strength is too small for real efficiency; it is too small even for the ordinary routine duties of a garrison, and drill and discipline both suffer from the numerical weakness of organizations. A considerable increase in the enlisted strength of the Army is, in my opinion, one of its most pressing needs.

INSTRUCTION AND DRILL OF TROOPS.

Practice marches, etc.—The practice marches and camps of instruction which have been inaugurated in several of the departments are regarded as an excellent means of maintaining efficiency in commands not engaged in active field service. It is believed that in the future they will become not only a valuable, but a very necessary part of the instruction of our troops, and I can not too strongly recommend that provision be made to carry them out on a more extensive scale than can be done at present.

Rifle and carbine firing.—Instruction in rifle firing has been conducted with great zeal throughout the division. The reduction in time devoted to rifle practice seems not to have lowered the high standard of proficiency heretofore attained. It is believed that with more careful preliminary training, during the winter months, a further reduction might be advantageous, and would afford more time for instruction in other matters. A suggestion has been made, which meets with my approval, that after a certain time has been spent in preliminary instruction and practice on the range, every shot fired be counted in determining figures of merit and relative standing. This method would afford more trustworthy data upon which to base an estimate of the real proficiency of individuals and organizations than that now in vogue.

It is suggested that as an additional stimulus to riflemen the names of "distinguished marksmen" who win places on the Army team be placed in the Army Register. This plan would secure the same permanent recognition of the skill of marksmen as is now accorded to the winners of the Nevada Trophy, and with even more reason, since under the present regulations they are debarred from all competitions or from winning further honors in a field wherein they have distinguished themselves.

The present system of instruction in rifle firing has accomplished much toward increasing the efficiency of the Army. It would appear,

however, that there is room yet, and that the time is ripe, for a further improvement. The firing is now conducted over familiar ranges and in all cases at practically known distances. This is proper only as a preliminary training and results simply in the attainment of a certain degree of skill in firing. This was doubtless the main object kept in view by the compiler of our authorized manual; but it is not in itself sufficient. Skill in the use of the rifle having been attained, instruction becomes necessary in the methods of applying this skill to best advantage on the battle-field. For this purpose it is essential that both tactical units and individuals be drilled, as nearly as may be possible, in the modes of action that would be there required of them.

Our present instructions, both in tactics and in rifle firing, are purely elementary, and, it may be said, also theoretical. Each runs in a groove of its own; each is made an end in itself without regard to the other; the tactics contains a system of firing, the firing manual a system of fighting tactics, of which one is obsolete and the other incomplete; neither would find application in war. In nations that continue long at peace, warfare becomes a theory. The specialist develops his specialty to the exclusion of other branches of the military art, of equal, or perhaps of greater, importance. This is a fault which is avoided in nations of recent war experience, where we find not only that all exercises are in the highest degree practical, but that all are directed toward one common end. The grooves are not parallel, but convergent. In these nations the elements of the various branches are first mastered; they are then united with each other, and from the union results a complete system which is a true preparation for the realities of war. Applying these remarks to the subject in hand, it seems evident that exercises combining both maneuvers and firing at properly placed figure targets, at absolutely unknown distances, are essential to complete the education of officers and men, and it is earnestly hoped that action may be taken to improve our system in the direction indicated.

Another aspect of this subject seems worthy of attention. The rifle is an infantry weapon, and the carbine itself is for use by cavalry when dismounted. Practice in the use of the rifle and carbine has, however, been made general for all arms of the service. It would seem that proficiency in the use of the infantry weapon by other arms has been attained at the sacrifice, to a certain extent, of a proper degree of skill in the use of their own special and distinctive weapons. To this extent the present general application of our system of rifle practice detracts from the efficiency of the Army as a whole, which requires that each of the several arms should be thoroughly proficient in its own peculiar mode of action.

RIFLE RANGE AT FORT SHERIDAN.

It is recommended that early steps be taken to construct a well-appointed rifle range at Fort Sheridan, Ill. It is believed that this range should be a model in every way, as it is the most suitable place in all respects at which to hold future competitions for places on the division rifle team.

NON-COMMISSIONED OFFICERS.

The position of non-commissioned officers is one of ever-increasing importance and responsibility. Non-commissioned officers, properly to perform the duties of their position, require, and should receive, a special education; they should, moreover, be of a higher average class of men

than we have heretofore been able to obtain in the regular service. I recommend that a school for non-commissioned officers of infantry and cavalry be established at Fort Leavenworth, on a plan similar to that now in operation at Fort Monroe for the benefit of the artillery. But it seems useless to expect much improvement in this respect until the pay attaching to these positions is sufficiently increased to offer an inducement for a good class of men to enlist for the purpose of obtaining them. While we have many good non-commissioned officers in the service, it is incontestable that the average of intelligence and efficiency is very far below what it should be. I therefore most earnestly recommend a material increase in the pay of non-commissioned officers, believing that such a measure would tend greatly to increase the efficiency of the Army.

SELECTION OF QUARTERS, ETC.

The regulations regarding selection of quarters by officers are one of the greatest causes of annoyance and of discord in garrisons. This arises from the lack of system which has heretofore prevailed in the construction of our posts. If quarters were made uniform for the several grades in the permanent posts hereafter to be erected, there would seem to be no adequate reason why an officer should be disturbed after having once settled. Officers subsequently joining the garrison could then, without injustice, be required to select from unoccupied quarters. This, of course, implies that there shall be a sufficient number of buildings for the accommodation of the garrison. And this should be the case. For many years officers have been forced to live in a manner wholly unsuited to the requirements of civilized beings. Nearly every post in the Army contains frame or log buildings which are of necessity still used for dwellings, and which are old, poorly built, unhealthy, and in fact unfit for human habitation. Few of the best have any facilities whatever for bathing, or any of the ordinary conveniences to be found in the houses of even the poorer classes in civil life. To compel officers and men in the service of the Government to live in such structures is to force unnecessary hardship upon a class of men whose lot, at the best, is one of discomfort and privation. In my report rendered last year from the Department of the Platte this subject was referred to, and I beg now to renew the recommendations then made, and to add that liberal appropriations are required and should be made at once to improve a condition of affairs that is as discreditable as it is universal throughout the Army.

I can not leave this subject without expressing my convictions as to the advisability of concentrating troops in regimental garrisons. The advantages resulting from the concentration of troops in large garrisons are too generally conceded to call for remark. The advantages would be still greater if regiments could serve together as complete organizations. It seems to me a serious mistake to build a permanent post in such a way that with a full garrison it can only be occupied by fractional parts of different regiments. It is earnestly hoped that the dispersion of organizations, which has so long been fruitful of demoralization in our service, may not be perpetuated by a faulty construction of the posts now building in this division.

TRANSPORTATION OF HOUSEHOLD EFFECTS.

The cost of transportation of household effects often bears heavily on an officer changing station, even though his possessions be of the most

modest description. The present allowance, under the regulations, is inadequate, and should be considerably increased.

REORGANIZATION OF INFANTRY.

I invite attention to and beg to renew the recommendations made in my annual report for last year, concerning the adoption of a twelve-company regimental organization for infantry.

STAFF ADMINISTRATION.

The report of the judge-advocate of the division contains some interesting and important suggestions, to which attention is invited. The details of administrative work at these headquarters are shown in the reports of chiefs of staff departments submitted herewith.

Very respectfully, your obedient servant,

GEORGE CROOK,

Major-General, U. S. Army, Commanding.

The ADJUTANT-GENERAL OF THE ARMY,

Washington, D. C.

REPORT OF BRIGADIER-GENERAL STANLEY.

HEADQUARTERS DEPARTMENT OF TEXAS,

San Antonio, Tex., September 13, 1888.

SIR: In reporting upon the affairs of this military department during the past year it may be well to say, and perhaps it is best that we can say, that there is very little to report.

The troops occupying this department consist of two regiments of infantry, one of cavalry, one light battery, and one detachment of Seminole-Negro Indian scouts. This is the smallest force of United States troops that has occupied Texas since annexation, excepting the few years of the Confederate struggle.

These troops are now posted at nine regularly-appointed military posts and seven camps. Of these posts the United States holds title to six, whilst the posts of Fort Concho and Davis are leased. And although an appropriation for securing the title to Fort Brown was made two years ago, such difficulties have been raised that no title has yet been settled. It does not become me to enter into the discussion over this vexed subject, but as a military question Fort Brown will be an army station for many years to come.

Fort Concho could be dispensed with, and I have formerly recommended its abandonment. This, however, did not meet the approval of the late Lieutenant-General of the Army. The proximity of the town of San Angelo and the coming of the railroad into that town have increased the value of the property of Fort Concho, and the rent is consequently large for the accommodation of a single company of infantry, the present garrison.

A great deal of money has been spent on Fort Davis, and the price of lease by which the reservation is held is small (\$1,000 per year), and this lease runs for thirty years yet. But the post is out of place, 24 miles from the Southern Pacific Railroad and 70 miles from the Texas Pacific Railroad—too far from the Rio Grande River (100 miles) to be of use as a frontier post. Under the circumstances, it would be good

policy and true economy to discontinue Fort Davis, and take a position near the Southern Pacific Railroad, preferably Pena, Colo., and build a three-company cavalry post. A post thus situated would have railroad communication, and would command all that large peninsula formed by the great southern bend of the Rio Grande River.

Of the camps occupied by troops one only belongs to the United States, viz, Del Rio. This, being the point at which the Southern Pacific Railroad, as looking to the west, first touches the Rio Grande River, and about the last limit of land cultivation until the vicinity of El Paso is reached, is a very suitable place for a military station, and I recommend that a yearly allotment for building purposes be made for constructing a post at that point.

I also recommend that the old site of Fort Duncan be purchased, and that the old post, which was built of good rock, be put in repair. This is now the gate to one of the great highways into Mexico. We maintain a military camp at Eagle Pass, and there will always be a call for troops at that place. The reservation of the old post of Fort Duncan can be bought on very cheap terms, and is necessary to our frontier system of defense. If these recommendations be adopted we would then have a systematic arrangement of posts in Texas, commencing at Fort Brown and ending at El Paso. We would have a series of eight posts as nearly 100 miles apart as can be arranged, the largest break being between Del Rio and Pena, Colo. (200 miles), which intervening space is well protected by the great cañon of the Rio Grande. These posts, with San Antonio and Fort Clark for reserve forces, would give this long frontier a symmetrical and systematic arrangement of posts, and would affectually guard the frontier.

Since my last report the force of this department has been reduced by sending the Eighth Cavalry to the Department of Dakota. The taking away of this regiment without substituting one in its place has proved very embarrassing. It was the expressed intention of the late Lieutenant-General to send a regiment to replace the Eighth Cavalry, and some time ago I made official application for a mounted regiment for that purpose, which I hope will be granted.

The health and discipline of the troops in this department are satisfactory. Desertion is the crying evil of the Army, and this department has a due share of it. I have in former reports given my opinion of the reasons which make it more aggravated, but do not think it advisable to repeat these opinions.

Very substantial improvements have been made in building and repairing during the year. The post of San Antonio is so far advanced that it can be spoken of as one of the most beautiful posts in the United States. The main object has been to build everything in the most substantial manner. The new rifle range upon the Government tract 3 miles from this post is so far completed that it was successfully used this year both for the department and division competitions. The success of both these competitions in making such high scores, and under very adverse weather from excessive rains, proves the excellence of this rifle range.

The reports* of the assistant adjutant-general, inspector general, judge advocate, chief quartermaster, chief commissary of subsistence, medical director, chief paymaster, acting engineer officer, and chief ordnance officer are herewith inclosed, and show fully the condition of the departments of which they have charge.

* Omitted.

I have directed the inspector of rifle practice to defer his report until the close of the practice season.

I am, sir, very respectfully, your obedient servant,

D. S. STANLEY,

Brigadier-General, Commanding.

The ADJUTANT-GENERAL,

Division of the Missouri, Chicago, Ill.

REPORT OF BRIGADIER-GENERAL RUGER.

HEADQUARTERS DEPARTMENT OF DAKOTA,

Saint Paul, Minn., September 15, 1888.

SIR: I have the honor to submit the following report of military affairs in the Department of Dakota since my report, rendered August 30, 1887:

There have been fewer occasions than in former years calling for action by the troops to repress Indian disturbances of a minor nature. A marked improvement, in particular, has occurred along the northern international boundary, and, so far as can be seen, is likely to continue. But one incursion south of the boundary, made by a party of Canadian Indians to the Marias River in Montana, has occurred during the past year; and but one by our Indians north of the boundary—a horse-stealing expedition, by Indians belonging to the Fort Belknap Agency in Montana, to the Canadian Blood Indian Reservation. The animals stolen were returned by interposition of the troops at Fort Assiniboine.

Whilst raiding, heretofore quite frequent, to the annoyance of settlers in the intermediate territory, by small hostile parties of the Yanktonais Sioux of the Fort Peck Agency, and the Piegons of the Blackfeet Agency, against the Crows, and the reverse, has not entirely ceased, there have been fewer of such raids, particularly by the Piegons.

In September, 1887, a party of Crow Indians made an expedition against the Piegons of the Blackfeet Reservation in Montana, which led to the trouble of last year with the Crow Indians.

The young Crows engaged in the raid learned upon their return to their reservation that their agent intended to arrest those concerned, and part of these Indians, joined by some other young Crows not of the raiders, went to the agency September 30, 1887, made threats against the agent, Mr. Henry E. Williamson, and the agency employés, and fired into some of the agency buildings; and, but for the arrival of troops dispatched by the commanding officer of Fort Custer, upon application of the agent, would probably have done personal violence to the agent and employés.

A force from Fort Custer was continued at the agency, pursuant to instructions, by telegram, of October 1, from division headquarters, for protection of the agent and employés and the agency property; but with directions not to use the troops to make arrest of the Indians, pending further instructions; expected, I presume, to be given consequent upon an investigation by the Interior Department, for which request was made by Major-General Terry, then commanding the Division of the Missouri.

On October 21, I received orders from the division commander, pursuant to instructions received from the War Department, to cause the arrest of the turbulent and defiant Indians of the Crow tribe, and for

their confinement at Fort Custer. I proceeded to Fort Custer, arriving there October 23.

It did not appear from information then had that the Crows, as a tribe, would break into active hostility, it remained a matter of conjecture, from information so far obtained, what part would probably join to resist arrest of the offenders.

The available force at Fort Custer I considered sufficient to subdue the Crows, but it seemed best to concentrate a considerable force in addition to the garrison of that post, to overawe the tribe, deter any who might be inclined to resist the troops, and better provide, in case of need, for protection of the extended settlements adjacent to the reservation. This course met the approval of General Sheridan, as expressed in conversation on his visit to Saint Paul shortly before, and also accorded with the discretion, in such regard, granted by telegraphic instructions from the division commander, dated October 21, hereinbefore referred to. Accordingly troops were directed, some when I was en route, to assemble at Fort Custer, as follows :

Companies D, G, and I, Fifth Infantry, under command of Major Snyder, by rail from Fort Keogh to Custer Station, arriving at Fort Custer October 25.

Companies B and F, Third Infantry, under command of Captain Bartlett, by rail from Fort Missoula to Custer Station, arriving at Fort Custer October 28.

Troop A, First Cavalry, from Fort Maginnis, under Lieutenant Traub, arriving at Fort Custer October 31.

It was suggested to the division headquarters that two troops of cavalry and infantry for train guard should be sent from Fort McKinney, Department of the Platte, to cover the country south of the agency near the Wyoming boundary, which disposition was ordered by the division commander, and, subsequently, at my further request, this force—Troops D and H, Ninth Cavalry, and Company C, Seventh Infantry—was made subject to my orders for all purposes.

Upon information that the disaffected Crows were making efforts to induce the Cheyennes of the Tongue River Agency to join them in case of trouble, I deemed it best to place a force at that agency—although not believing the Cheyennes were likely to assist the Crows, except, possibly, some restless young men in case of actual hostilities—and ordered on October 21, Company E, Fifth Infantry, Captain Ewers, and Troop A, Seventh Cavalry, Captain Moylan, from Fort Keogh, Captain Ewers, commanding, to proceed without delay to the Tongue River Agency.

After obtaining, on arrival at Fort Custer, all information possible of the state of affairs by reports from the commanding officer, Indian Agent Williamson, and Indian Inspector F. C. Armstrong, who had made an investigation directed by the Secretary of the Interior, there appeared no reason to apprehend an immediate outbreak, and I decided to delay action until the greater part of the troops ordered to Fort Custer should arrive.

For convenience of administration and supply, and to avoid, unless circumstances should require, the organization of a staff, I directed the troops, on arriving, to report to the commanding officer Fort Custer, Col. N. A. M. Dudley, First Cavalry, to whom I gave such directions for execution as were from time to time necessary.

To increase the force, one company, Third Infantry, at the Crow Agency—10 miles distant—I directed the battalion of three companies of the Fifth Infantry, under Major Snyder, to be sent there October 29. Soon after the disturbances on September 30 at the agency about three-

fourths of the tribe who had been located, many settled on allotments, along the Big Horn and Little Big Horn Valleys, left their locations and banded together on the Big Horn River, some miles south of the post. The greater part of the remaining fourth of the tribe, located in the western part of the reservation, had, with the exception of some young men who had joined the camps on the Big Horn, remained on their locations.

This unsettled state of the tribe was principally brought about by a young medicine man, "Chese-cha-pah-dish," also called "The Sword Bearer," who was the principal actor in the disturbance at the agency, and had for some time before been defiant to the agent, and active in effort to supplant the older chiefs and become the principal man of the tribe. He had succeeded in getting the adherence of many of the young men, upon whom he imposed belief that he could prevent arrest of the offenders, and by intimidation and working upon their superstitious fears, had reduced the older and well disposed to a passive state, so far as active interference with his schemes was concerned. The Indians located on the western part of the reservation, "Plenty Coos" band, and his following generally, were not apparently much affected by the medicine man.

It seemed best, in place of attempting the arrest of individuals wherever to be found, with the attending possibility of escape by some, and that small bands might begin depredations, if not do worse, to assemble the tribe at the agency, and there determine the matter with lasting effect. Such course also accorded with the purposes of Indian Inspector Armstrong and Agent Williamson. Accordingly, orders were given by the agent, at my request, to the Indians belonging on the eastern part of the reservation, and directly by my order to those in the western, that all the Indians should assemble at the agency November 4, on which date all, except a few stragglers and "Plenty Coos" band, which for want of time had not arrived, had collected at the agency. The force there present consisted of Troops A, B, D, E, G, and K, Col. N. A. M. Dudley, Lieut. Col. A. K. Arnold, and Maj. J. M. Hamilton, First Cavalry; Troop A, Seventh Cavalry, Capt. Miles Moylan, which had been brought from the Tongue River Agency; Troops D and H, Ninth Cavalry, Capt. E. D. Dimmick, and First Lieut. P. P. Powell; Companies B and E, Third Infantry, Capt. J. P. Thompson and M. C. Wilkinson; Companies D, G, and I, Fifth Infantry, Capt. C. E. Hargous, Henry Romeyn, and Second Lieut. C. G. Lyman—Maj. Simon Snyder, Fifth Infantry, commanding the battalion, and Company C, Seventh Infantry, Capt. D. W. Benham. There was also a gun detachment with two Hotchkiss guns, from the garrison of Fort Custer, under Second Lieut. Haydn S. Cole, Third Infantry, and a gun detachment with two Hotchkiss guns, which accompanied the battalion Fifth Infantry from Fort Keogh.

On November 5 I sent for the chiefs and principal men of the Crows present, informed them that I had received orders to arrest those guilty of making the disturbance at the agency, and advised them to arrest and deliver the offenders, as otherwise I should take them. I gave one hour and a half in which to deliver the prisoners. All the Indians were well aware of the object causing the troops to be assembled, and the time allowed for the surrender was ample.

The force was disposed, meantime, for such action as might be needed or advisable. The troops of the First Cavalry, under immediate command of Colonel Dudley, being advanced opposite the Indian camp, taking intervals: the battalion Fifth Infantry, Major Snyder, and the

other companies and troops were placed for protection of the agency, or held in readiness for action as might be necessary.

The main Indian camp was scattered along the valley of the Little Big Horn River, near the west bank and below and to the north of the agency buildings, for a distance of about 1 mile; and still farther down the valley, separated by an interval of almost 1 mile, was the camp of the chief "Pretty Eagle," who, as afterward became evident, had, on arrival, under permission from the agent, separated his following from that of others to avoid being involved in anticipated trouble.

During the time given, as before stated, for the surrender of the offenders, many Indians, particularly the young men, collected in that part of their main camp farthest from the agency. At about the expiration of the time two Indians, one correctly presumed at the time to be "The Sword Bearer," and the other his submedicine man, rode out from the Indian camp, followed at a little distance by from one hundred to one hundred and fifty others. What the ultimate intention of these Indians was I have been unable to learn, but seemingly, from the direction they took, their purpose was to escape to the hills to the left and the plateau between the Big and Little Big Horn Rivers. Their movement presented necessity for action other than before intended, in case the Indians designated for arrest were not surrendered, and I directed Colonel Dudley to cut off the Indians in motion. He intercepted them by two troops of the First Cavalry; whereupon, a smart skirmish immediately ensued between the troops of the First Cavalry, under command of Colonel Dudley, Lieutenant Colonel Arnold, and Major Hamilton of the same regiment, commanding battalions, and the Indians, principally the young men, to the number of from one hundred to one hundred and fifty, who had assembled as before stated. The Indians were soon driven back and over the Little Big Horn River, some escaping to the hills southeast of the agency, and others taking refuge in the Indian village near the agency buildings. Those so taking refuge passed, many of them, within easy range of two companies of Infantry—E, of the Third, Captain Wilkinson, and C, Seventh—which I had directed to take position between the agency and the Indian camp, Captain Benham, Seventh Infantry, commanding; but fire by this force was properly withheld by Captain Benham, upon seeing that resistance to the troops had ceased. I directed Colonel Dudley to send two troops, under Major Hamilton, in pursuit of the Indians who had fled to the southeast, and later ordered that Troop H, Ninth Cavalry, Captain Dimmick, followed by troop A, Seventh Cavalry, Captain Moylan, should go up the Little Big Horn to search the country about the camps occupied before the trouble, by the bands of "Crazy Head" and "Deaf Bull," where, it was thought, any Indians bent upon mischief might assemble during the night.

Pits had been dug by the Indians, some under teepees in the main camp, some behind teepees, which had been pitched in open ground, and others scattered about in the growing brush bordering the Little Big Horn, also some on the slope of the river bank. Some of these pits were deep, particularly those in the brush, and seemingly made for shelter only, but others were, apparently, for use in firing.

I did not observe or learn that firing was done from these pits, except possibly from some on the river bank, but the bank itself was equivalent to a trench.

"The Sword-Bearer" and seven of his followers, as reported, were killed and a number wounded in the fight. The casualties to the troops were Corporal Charles Sampson, Troop K, First Cavalry, killed,

and Privates Eugene Molloy and William Clark of the same troop, wounded.

The result of the fight, including the killing of the medicine man, was most fortunate; the Indians inclined to hostility were completely subdued, and the authority of those well disposed was restored. Those not killed, whose arrest was ordered, either surrendered or were brought in and delivered up on that and the following day. These and also the chief "Crazy Head," who had been an adviser to "The Sword-Bearer," and implicated in resisting the troops, and the subchief "Deaf Bull," who had counseled resistance to the troops, and been active in trying to induce the Cheyennes at the Tongue River Agency to join the refractory Crows, were, in accordance with the decision of the President, dated November 7, 1887, sent as prisoners to Fort Snelling, Minn.

The punishment given the Crows has had a very salutary effect, and none of them will likely be again led into compromising action. For statements, in detail, not suitable to this report, of facts and circumstances connected with the trouble, and of the part taken by the troops, attention is requested to former reports, the particular reports of subordinate commanders and my remarks in connection therewith.

It was the good fortune of officers and men of the First Cavalry present that to them fell the actual fighting done by the command, except some firing, with good effect, by the gun detachments under Lieutenant Cole, Third Infantry, and that with the battalion, Fifth Infantry; but the presence of the other troops, infantry and cavalry, and their disposition on the ground, made possible the conditions so favorable to the troops of the First Cavalry. The behavior of the troops of the First Cavalry was excellent, in particular, for steadiness and rapid movement, when necessary, without confusion or needless hurry.

Colonel Dudley, in his report, has commended for efficiency and good conduct First Lieut. R. P. P. Wainwright, adjutant First Cavalry, and to this I may add my personal testimony, and also testify to the zeal, efficiency, and activity of Colonel Dudley in the execution of orders received and to good conduct on the field.

It would do but partial justice to all concerned to commend only those actually engaged and for the deeds done; what was forborne by others as well, from humane motives under circumstances of provocation, is as praiseworthy as what actually was done against these Crow Indians. The forbearance shown impressed the Indians, who said they would ever "be the friends of the soldiers who had spared them when they might have killed them all."

The medical officers present on the field were: Capts. C. E. Price and R. G. Ebert, and Lieut. William N. Suter, medical department, who performed efficiently the duties devolving upon them.

To First Lieut. Robert F. Bates, Eighteenth Infantry, my aide-de-camp, I was indebted for efficient assistance in conveying my orders and also for performance of such duty as assistant adjutant-general as was necessary. First Lieut. John Biddle, Corps of Engineers, then chief engineer officer of the department, and at the time engaged on duty in the vicinity of Fort Custer, reported to me at the agency on the morning of the 5th of November, and did duty efficiently on that day as aide-de-camp.

The operations for the year are embraced in the summary of events which follows:

August 16, 1887.—A detachment of fifteen men of Troop L, First Cavalry, and Lieutenant Welsh, Fifteenth Infantry—Lieutenant Backus,

First Cavalry, commanding—left Fort Buford on a scout to and along the Canadian frontier.

September 5, 1887.—The detachment of Troop L, First Cavalry, under Lieutenant Backus, First Cavalry, that left Fort Buford August 16 last on a scout to and along the Canadian frontier, returned. Distance traveled, 185 miles.

September 10, 1887.—The detachment of twenty-five men of the Third Infantry, under Lieutenant Kennedy, Third Infantry, that left Fort Missoula, June 13 last, for Tobacco Plains, Montana, and encamped there since June 25, restraining United States and other Indians from crossing the boundary for illicit purposes, etc., returned. Total distance traveled, 440 miles.

September 12, 1887.—Companies A and D, Fifteenth Infantry, Captain Brinkerhoff, Fifteenth Infantry, commanding, left Fort Randall and marched to Yankton Indian Agency, Dak., 15 miles, arriving the same day, for the purpose of protecting employes of the Interior Department engaged in surveying the lands there for allotment in severalty, under act of February 8, 1887, and the Indians accepting them, from violence, threatened by about thirty Yankton Indians of the non-progressive elements; also to enforce the orders of the agent and render all necessary assistance in carrying out the laws, etc. After the arrival of the troops the Indians submitted quietly to the orders of the agent and were desirous of receiving their allotments.

September 24, 1887.—Troops D and G, First Cavalry, under Captain Forse, First Cavalry, returned to Fort Custer. These troops left that post August 3 last, reporting to Major Snyder, Fifth Infantry, August 6, at Cheyenne Indian Agency on Tongue River, Montana, to co-operate with his command in removing from that agency all Northern Cheyenne Indians belonging to the Pine Ridge Agency, Dak. On August 12 these two troops left Tongue River Agency en route to Pine Ridge with one hundred and ninety-nine Northern Cheyennes, arriving August 31, and leaving there on return journey September 1. Total distance traveled, 884 miles.

September 29, 1887.—Light Battery F, Fourth Artillery, left Fort Snelling, Minn., to attend the International Military Encampment at Chicago, Ill., in the month of October, 1887.

September 30, 1887.—Information was received at Fort Custer, from the Crow Indian agent, that a party of twenty-two Crow Indians had just returned to the agency, from a raid on the Piegan Indians, in a defiant and threatening mood; that they resisted arrest and fired into the agency buildings, and owing to the inability of the Indian police to make arrests, the agent asked that troops be sent to his aid; whereupon Troops B and E, First Cavalry, under Captain Wesendorff, First Cavalry, were sent to the agency at 10 o'clock, p. m., and next morning, October 1, Troops G and K, First Cavalry, under Captain Upham, First Cavalry, were also sent—all to protect the agency property and employes only. It was found upon arrival at the agency that affairs there had become more serious and complicated than was at first reported, the raiding party having, in the meantime, been joined by a considerable number of other Crows, all of whom evinced a determination to fight rather than submit to arrest. On October 2, the turbulence at the agency having somewhat abated, Troops B, E, and G were withdrawn, leaving Troop K to protect the agency. This troop was relieved October 3 of this duty by Company E, Third Infantry, Captain Wilkinson, of Fort Custer.

October 2, 1887.—Troop C, First Cavalry, arrived at its station, Fort

Buford. This troop left Fort Maginnis May 19 last for temporary duty—scouting, etc.,—at Fort Assinniboine, arriving May 26. On July 12 it was transferred from Fort Maginnis to its present station, but remained in the field guarding the advance parties engaged in the construction of the Saint Paul, Minneapolis and Manitoba Railway, having assumed that duty July 22.

October 9, 1887.—A detachment of ten men of Company H, Fifteenth Infantry, Captain Bean, Fifteenth Infantry, commanding, left Fort Randall for Pipestone Indian Reservation, Minnesota, to remove certain unauthorized persons settled thereon. Returned October 22, having accomplished the duty.

October 17, 1887.—The encampment established May 31 last, at Sweet Grass Hills, Montana, to check incursions of Canadian Indians and prevent United States Indians from raiding north of the boundary, was discontinued; and the troops—H, First Cavalry, and B, Twentieth Infantry—rejoined their station, Fort Assinniboine, October 19.

October 20, 1887.—Light Battery F, Fourth Artillery, returned to its station, Fort Snelling, from Chicago, Ill., having been absent since September 29 last, attending the International Military Encampment.

October 22, 1887.—Troop A, Seventh Cavalry, and Company E, Fifth Infantry, Captain Ewers, Fifth Infantry, commanding, left Fort Keogh for Tongue River Indian Agency, Mont., to deter the Cheyenne Indians there from joining the Crow Indians in hostilities; also as a precaution against their being thus influenced. Arrived October 28. Distance traveled, 90 miles.

October 22, 1887.—Company G, Fifth Infantry, left Fort Keogh, and the next day Companies D and I, same regiment, left that post and proceeded to Custer Station by rail, thence by march to Fort Custer, where all arrived October 25, preparatory to taking the field against the refractory Crows. On the 29th these companies left Fort Custer, Major Snyder, Fifth Infantry, commanding, and proceeded to the Crow Indian Agency to re-enforce Company E, Third Infantry (Wilkinson's), in protecting the agency property and employes. Arrived same day. Prior to the arrival of this command an attack on Company E, Third Infantry—numbering less than forty all told—by a band of over one hundred armed and organized Crows, led by "The Sword Bearer," seemed probable.

October 24, 1887.—Companies B and F, Third Infantry, Captain Bartlett, Third Infantry, commanding, left Fort Missoula for Fort Custer, preparatory to taking the field against the refractory Crow Indians. Arrived October 28.

October 27, 1887.—Troop A, First Cavalry, Lieutenant Traub, First Cavalry, commanding, left Fort Maginnis for Fort Custer, preparatory to taking the field against the refractory Crows. Arrived October 31. Distance traveled 153 miles.

October 27, 1887.—Companies A and D, Fifteenth Infantry, Captain Brinkerhoff, Fifteenth Infantry, commanding, returned to Fort Randall, having accomplished the duty of protecting those engaged in surveying the lands at Yankton Indian Agency, for allotment in severalty, and the Indians accepting them, from threatened violence.

November 4, 1887.—Troops A, B, D, E, G, and K, First Cavalry, and Company B, Third Infantry, Colonel Dudley, First Cavalry, commanding, left Fort Custer for the Crow Indian Agency, Montana, to arrest certain refractory Crows; arrived the same day. Beside these, there were in the field, at or near the agency, for the same purpose, Troop A,

Seventh Cavalry, and Companies E, Third, and D, G, and I, Fifth Infantry; also Troops D and H, Ninth Cavalry, and Company C, Seventh Infantry, from Fort McKinney, Department of the Platte—all under the immediate orders of the department commander. On the 5th the refractory Crows, controlled by "The Sword-Bearer," engaged the First Cavalry in a skirmish, the result of which was one corporal killed and two privates wounded, all of Troop K; and on the Indian side "The Sword-Bearer" and six others killed and eight or ten wounded—exact number not known. Nine of the leading disturbers were captured, and November 13, eight of them were sent under escort to Fort Snelling, Minn., where they arrived November 15 and were placed under guard—the remaining one was left under medical treatment at Fort Custer, for self-inflicted wound. The troops were withdrawn, and arrived at Fort Custer as follows: Company E, Third Infantry, November 6; Troop G, First Cavalry, and Company B, Third Infantry, November 12, and Troops A, B, D, E, and K, First Cavalry, November 13. Troop A, Seventh Cavalry, left for Tongue River Indian Agency, and Troops D and H, Ninth Cavalry, and Company C, Seventh Infantry, for Fort McKinney, November 12.

November 15, 1887.—Fire was communicated to the wood and coal at Fort Bennett, Dak., by sparks from a burning stable of the Indian agency adjoining the post, destroying about 24 cords wood and 150 tons coal.

November 21, 1887.—Companies B, and F, Third Infantry, Captain Bartlett, Third Infantry, commanding, returned to Fort Missoula from field operations against the refractory Crow Indians.

November 24, 1887.—Troop A, First Cavalry, under Lieutenant Traub, First Cavalry, returned to Fort Maginnis from field operations against the refractory Crow Indians.

November 25, 1887.—Companies D, G, and I, Fifth Infantry, Major Snyder, Fifth Infantry, commanding, returned to Fort Keogh from field operations against the refractory Crow Indians.

November 28, 1887.—Troop A, Seventh Cavalry, and Company E, Fifth Infantry, Captain Ewers, Fifth Infantry, commanding, returned to Fort Keogh, from Tongue River Indian Agency. Troop A was at the Crow Indian Agency November 1 to 12.

March 21, 1888.—At Fort Buford, Dak., fire broke out at 1.30 a. m., destroying one building containing two sets of officers' quarters.

May 10, 1888.—A detachment of Troop F, First Cavalry, consisting of two non-commissioned officers and fifteen privates, left Fort Assiniboine, Mont., for Fort Belknap Agency, Mont., to guard it against a threatened visit of a party of Canadian Blood Indians, reported south of the boundary, in pursuit of Assiniboine Indian horse thieves. The detachment returned to Fort Assiniboine, May 12, with 23 ponies, stolen from the Canadian Bloods near Fort McLeod, Northwest Territory; also with the thieves, three Assiniboine Indians, who were turned over by the agent at Belknap for confinement at Fort Assiniboine. On May 19, a detachment of the First Cavalry, under Lieutenant Cabaniss, Twentieth Infantry, left Fort Assiniboine to turn over to the Canadian authorities the 23 ponies stolen from the Bloods; returned May 23, having completed the transfer.

May 18, 1888.—Company C, Third Infantry, left Fort Custer, Mont., for Fort Meade, Dak.; arrived and took station May 31, with the Third Infantry companies from Fort Missoula. All moved in one command from Garrison, Mont.

May 18, 1888.—Company E, Third Infantry, left Fort Custer, Mont., for Fort Snelling, Minn.; arrived May 22, and took station.

May 18, 1888.—Lieutenant-colonel and Companies B, C, and F, Twenty-fifth Infantry, left Fort Snelling, Minn., for Fort Shaw, Mont.; arrived May 21, and took station.

May 19, 1888.—Troop A, Seventh Cavalry, left Fort Keogh, Mont., and marched to Fort Meade, Dak., arriving May 31, preparatory to leaving for the Department of the Missouri.

May 19, 1888.—Troops E and H, Seventh Cavalry, left Fort Yates, Dak., and marched to Fort Meade, Dak., arriving May 28, preparatory to leaving for the Department of the Missouri.

May 20, 1888.—Headquarters and Companies A, H, and K, Third Infantry, left Fort Shaw, Mont., for Fort Snelling, Minn.; arrived May 23, and took station.

May 21, 1888.—The major and companies B, F, and I, Third Infantry, left Fort Missoula, Mont., for Fort Meade; arrived May 31, with Company C, Third Infantry, from Fort Custer, and took station.

May 21, 1888.—Lieutenant Maney, Fifteenth Infantry, with a detachment of fourteen men, of Fort Buford, Dak., left that post to garrison Fort Totten, Dak., until the arrival of the Twenty-second Infantry, destined therefor, from the Department of the Missouri; arrived May 23.

May 23, 1888.—Company E, Twenty-fifth Infantry, left Fort Sisseton, Dak., for Fort Shaw, Mont.; arrived May 27, and took station.

May 23, 1888.—The headquarters and band Twenty-fifth Infantry, left Fort Snelling, Minn., for Fort Missoula, Mont.; arrived May 26, and took station.

May 26, 1888.—Company I, Twenty-fifth Infantry, left Fort Snelling, Minn., for Fort Keogh, Mont., to garrison there until the arrival of the Twenty-second Infantry, destined therefor, from the Department of the Missouri, then to proceed to its proper station, Fort Missoula, Mont. Arrived at Fort Keogh, May 28.

May 27, 1888.—Company G, Third Infantry, left Fort Shaw, Mont., for Fort Sisseton, Dak.; arrived May 31, and took station.

May 29, 1888.—Companies A, D, H, and K, Twenty-fifth Infantry, left Fort Meade, Dak., A and D to take station at Fort Custer, Mont., and H and K at Fort Missoula, Mont.

May 30, 1888.—The headquarters, band, and Companies A, B, D, E, G, H, and I, Fifth Infantry, left Fort Keogh, Mont., for Bismarck, Dak., preparatory to leaving for the Department of Texas. Arrived at Bismarck May 31.

May 30, 1888.—The lieutenant-colonel and Companies F and K, Fifth Infantry, left Fort Totten, Dak., for Bismarck, Dak., preparatory to leaving for the Department of Texas. Arrived at Bismarck May 31.

May 31, 1888.—The district of Montana was abolished, and the records thereof ordered sent to department headquarters.

June 1, 1888.—The headquarters, band, and Companies A, B, D, E, F, G, H, I, and K, Fifth Infantry, Colonel Gibson, Fifth Infantry, commanding, left Bismarck, Dak., by boats, stopping at Fort Abraham Lincoln, Dak., to take on Company C, of that regiment, and proceeded en route for stations in the Department of Texas, as follows: Headquarters, band, B and E, Fort Bliss; lieutenant-colonel, I and K, Fort Davis; Major, C and F, Fort McIntosh; A and G, Fort Ringgold; D, Fort Brown, and H, Fort Hancock.

June 1, 1888.—Company O, Fifth Infantry, left Fort Abraham Lincoln,

Dak., and proceeded with the rest of that regiment en route to the Department of Texas.

June 1, 1888.—Company D, Twentieth Infantry, left Fort Maginnis, Mont., marched to and took station at Fort Assiniboine, Mont., June 8. Distance traveled, 126 miles.

June 1, 1888.—Company A, Twentieth Infantry, left Fort Assinaboine, Mont., marched to and took station at Fort Maginnis, Mont., June 7. Distance traveled 126 miles.

June 1, 1888.—Troops B, E, I, and L, Seventh Cavalry, and Major Baldwin, Seventh Cavalry, Lieutenant-Colonel Tilford, Seventh Cavalry, commanding, left Fort Meade, Dak., to march to Fort Riley, Kans., B, I, and L to take station there, the lieutenant-colonel, major, and troop E destined for Fort Sill, Indian Territory.

June 2, 1888.—Troops A, F, H, and K, Seventh Cavalry, Major Bacon, Seventh Cavalry, commanding, left Fort Meade, Dak., to march to Fort Riley, Kans., the major and F, to take station there, A, H, and K, destined for Fort Sill.

June 3, 1888.—Company G, Twenty-fifth Infantry, left Fort Sisseton, Dak., for Fort Keogh, Mont., to garrison there until the arrival of the Twenty-second Infantry, destined therefor from the Department of the Missouri, then to proceed to its proper station, Fort Missoula, Mont. Arrived at Fort Keogh, June 6; left there with Company I, Twenty-fifth Infantry, June 7, for Fort Missoula; arrived and took station June 8. Total distance, 1,204 miles.

June 5, 1888.—Company I, Twenty-second Infantry, arrived and took station at Fort Abraham Lincoln, Dak., from Fort Lyon, Colo., Department of the Missouri, having left that post June 1. Distance, 1,618 miles.

June 6, 1888.—The lieutenant-colonel and Companies E and G, Twenty-second Infantry, arrived and took station at Fort Totten, Dak., E from Fort Marcy, N. Mex., Department of Arizona, which station it left June 1, and G, from Fort Lewis, Colo., Department of the Missouri, which station it and the lieutenant-colonel left May 31. Distance by E, 1,775 miles; by G, 1,809.

June 6, 1888.—Headquarters, band, and companies A, B, C, D, F, H, and K, Twenty-second Infantry, arrived and took station at Fort Keogh, Mont., from Department of the Missouri. Headquarters, band, and C and F, left Fort Lyon, Colo., June 1, and A, B, D, H, and K, left Fort Lewis, Colo., May 31, and met at Denver, Colo., June 2. Distance by headquarters, band, C, and F, 1,621 miles; by other companies, 1,873 miles.

June 7, 1888.—Companies H and K, Twenty-fifth Infantry, arrived and took station at Fort Missoula, Mont., from Fort Meade, Dak., having left that post May 29 last. Distance, 1,092 miles.

June 8, 1888.—Company I, Twenty-fifth Infantry, arrived and took station at Fort Missoula, Mont. This company left Fort Snelling, Minn., May 26 last, for Fort Keogh, Mont., to garrison there until the arrival of the Twenty-second Infantry, destined therefor, from the Department of the Missouri. Arrived at Keogh May 28, and left there June 7, with Company G, Twenty-fifth Infantry.

June 8, 1888.—The lieutenant-colonel and Company D, Third Infantry, left Fort Missoula, Mont., for Fort Snelling, Minn.; arrived and took station June 11. Distance, 1,290 miles.

June 10, 1888.—Companies A and D, Twenty-fifth Infantry, arrived and took station at Fort Custer, Mont., from Fort Meade, Dak., having left that post May 29 last. Distance, 1,405 miles.

June 15, 1888.—The detachment of Crow Indian scouts of Fort Custer, Mont., six in number, under Interpreter Charles Cacely, left that post in pursuit of a party of three Sioux Indians that had run off some forty-three ponies belonging to Crow Indians residing on the Big Horn River about 3 miles south of Fort Custer. The Sioux trail was struck about 8 miles west of Fort Custer, leading in the direction of Pompey's Pillar, on the Yellowstone River, and followed to the banks of that river, where the party was overtaken, and a fight ensued in which one Sioux was killed and one wounded; the other is supposed to have been drowned swimming the Yellowstone trying to escape, also the wounded one. The detachment returned June 16, having recovered all the stolen ponies; these have been restored to the Crows. Distance, 107 miles.

June 16, 1888.—The detachment of enlisted men of Fort Buford, Dak., under Lieutenant Maney, Fifteenth Infantry, that left that post May 21 last for Fort Totten, Dak., and arrived there May 23 to garrison until the arrival of the companies of the Twenty-second Infantry destined therefor; returned to Fort Buford, having left Fort Totten June 15.

July 23, 1888.—A detachment of fifteen enlisted men, Twenty-second Infantry, Second Lieutenant Moody, Twenty-second Infantry, commanding, left Fort Keogh, Mont., by rail, for Camp Sheridan, Wyo., to be absent until October 1 next, for duty in connection with the protection of the Yellowstone Park.

August 18, 1888.—Troops B and E, First Cavalry, Major Hamilton, First Cavalry, commanding, left Fort Custer, Mont., to intercept and prevent from entering the limits of the Tongue River Reservation a party of twenty-five Sioux Indians reported to have left Pine Ridge Agency, Dak., August 7, for the purpose of visiting the Tongue River Agency to participate in a sun-dance; arrived at the Agency August 20. Here it was learned that a party of Cheyennes from Pine Ridge, consisting of 4 men, 13 women and children, was then encamped at a point on Tongue River where some 350 of the Indians belonging to Tongue River Agency reside, and distant from the agency about 25 miles. For that point the command set out August 21 to effect the removal of all Indians found belonging to Pine Ridge; after arrival, it was found that there were in all 23 Indians there belonging to that agency. Of this number 15, including Grasshopper, the leader, left for Pine Ridge August 23, under an Indian policeman, the arrangements for the removal having been conducted by the Indian authorities. The remaining 8, including men, women, and children, were, for various causes, by consent of Indian Inspector Bannister, permitted to remain. The object having been accomplished, the command left Tongue River August 30, on return journey, arriving at Fort Custer September 1. Total distance traveled, about 132 miles.

Additional information in detail, covering events, will appear from Abstract C.*

The accompanying register of troops will indicate the regiments in the department, with the stations occupied and their garrisons.

*Omitted.

The strength of the several garrisons, taken from the last completed July returns, is as follows:

Posts.	Officers.	Enlisted men.	Indian scouts.
Fort Abraham Lincoln, Dak	7	89	.....
Fort Assinaboine, Mont	33	388	2
Fort Bennett, Dak	3	41	2
Fort Buford, Dak	22	302	1
Fort Custer, Mont	28	411	6
Fort Keogh, Mont	28	308	12
Fort Maginnis, Mont	8	92	.....
Fort Mcade, Dak	15	165	.....
Fort Missoula, Mont	17	206	.....
Fort Pembina, Dak	7	69	.....
Fort Randall, Dak	16	172	.....
Fort Shaw, Mont	14	193	.....
Fort Sisseton, Dak	4	48	.....
Fort Snelling, Minn	26	276	.....
Fort Sully, Dak	14	178	.....
Fort Totten, Dak	9	88	.....
Fort Yates, Dak	18	160	2
Camp Poplar River, Mont	7	82	1
Camp Sheridan, Wyo	3	67	.....
Fort Abraham Lincoln Ordnance Depot, Dak	1	6	.....
Eighth Cavalry en route to posts in Department	280	3,339	26
	43	583	.....
Total	823	3,922	26

The general condition as to discipline and military instruction in the department for the past year is satisfactory. Owing to changes of station by regiments and companies within the department and from and to it, not yet completed as to all troops of the Eighth Cavalry and some troops of the First Cavalry, and the need consequent upon such movements for use of all available transportation of posts concerned, it has not been practicable to assemble any considerable force for field exercises, but such instruction of the nature indicated as circumstances permitted has, and under orders heretofore given will be had, at the several posts before the close of the season.

There has been an increase both in the number and per cent. of desertions in the department the past year. The increase is due to increase occurring at a few posts. The increase at certain posts appears, upon investigation, due immediately to causes of temporary effect, such as changes of some companies to stations not so desirable as those formerly occupied, where nearly all of the men had passed the greater part of their service; the influx and demoralizing influence of bad characters who invaded the country about the posts in the region north of the Missouri River, in Montana, recently opened to settlement; and the greater facility for escape afforded deserters by the construction of railroads near posts in that region.

After all the inquiry and discussion, of late years, as to the causes, the facts remain evident to those whose duties bring them into close relation with the soldiers of our Army that the soldiers are well provided for, well treated and well paid, the exceptions to the general state being so few as to be of no consequence relative to the question of desertion; also that the immediate causes, so far as ascertainable, are trivial as an excuse or a palliation for the crime. The root of the evil is, of course, want of proper sense of moral obligation on the part of the deserter to fulfill his contract for service and oath of enlistment; and

Troop E, Sixth Cavalry (Kramer's), while en route from Fort Union, N. Mex., to Fort Lewis, Colo., in September, 1887, was stopped at Amargo, N. Mex., and placed under the orders of Maj. Gen. O. O. Howard, commanding Division of the Pacific, to be used in connection with Troop F, Sixth Cavalry (Lieutenant Gallagher, commanding, which had been detached there from Fort Lewis since February, 1887), in removing trespassers from the Jicarilla Apache Reservation. Both troops arrived at Fort Lewis October 16, 1887.

Companies A (Lacey's) and E (Lincoln's), Tenth Infantry, under command of Capt. F. E. Lacey, Tenth Infantry, left Fort Lyon October 10, 1887, fully armed and equipped, on a practice march to a point on Rule Creek, Colo., 26 miles distant, and returned to post October 16.

Companies C (Thorne's), F (Ward's), and I (Clarke's), Twenty-second Infantry, under command of Capt. P. M. Thorne, Twenty-second Infantry, left Fort Lyon, Colo., October 18, 1887, fully armed and equipped, on a practice march to a point on Mud Creek, Colo., 31½ miles distant, and returned to post October 24.

First Lieuts. E. W. Casey and Theodore Mosher, Second Lieut. F. B. Jones, Twenty-second Infantry, and Asst. Surg. N. S. Jarvis, U. S. Army, with ten enlisted men, left Fort Lewis, Colo., November 2, 1887, to reconnoiter the Grand Cañon of the Colorado River. Returned to post January 5, 1888. Lieutenant Casey's report was forwarded June 12, 1888.

During the months of May, June, and July detachments from Forts Elliott and Supply were engaged in keeping cattle passing through the Territory on proper trails.

In compliance with telegram of July 22, 1888, from division headquarters, transmitting for necessary action a dispatch of the 20th from Governor William M. Guy, of the Chickasaw Nation, to the President, appealing for aid of troops for protection against armed resistance of intruders to intercourse and Territorial laws, and to enforce treaty obligations, Capt. E. D. Thomas, Fifth Cavalry, with his troop (D), forty-two enlisted men and two Indian scouts, left Fort Sill July 23 for Ardmore, Ind. T., and returned early in August, his aid being no longer required by the agent. Captain Thomas's report, which was forwarded August 31, contains the following, which deserves special notice:

The non-citizen element will not comply with the Chickasaw permit laws and hold cattle in excess and contrary to Territorial laws; will not pay the tax imposed upon cattle; number about two hundred, are active, defiant, no respecters of Indian rights or persons, are unscrupulous and lawless class, and dangerous in any country.

The dispute or question, disagreement or construction, and meaning of United States statutes and interpretation and legality of Territorial enactments are civil questions and should at once be settled beyond dispute by civil tribunals. At present the whole thing rests with Indian agent. The Government being bound by treaty stipulations to enforce laws, protect the Chickasaws in the enjoyment of their rights, and to eject all intruders.

CHANGES IN DEPARTMENT AND TRANSFERS OF TROOPS.

Headquarters, band, and Troops C (Jackson's), D (Godfrey's), G (Gibson's), and M (Edgerly's), Seventh Cavalry, which, at the date of last annual report, were en route from Department Dakota to Fort Riley, arrived and took station thereat September 8, 1887.

Post near Denver, Colo., was established on reservation declared September 27, 1887, by Executive authority, as published in General Orders Nos. 61 and 65, series 1887, Adjutant-General's Office. Maj. G. K. Brady, Eighteenth Infantry, was assigned to command. Companies A (Kel-

logg's) and E (Baldwin's), Eighteenth Infantry, from Forts Hays and Leavenworth, respectively, constituting the garrison.

Fort Sheridan, Ill.—Under General Orders No. 6, series 1887, Division of the Missouri, Maj. W. J. Lyster, Sixth Infantry, with Companies I^r (Munson's) and K (Penney's), Sixth Infantry, arrived at and took station November 2, 1887, on a tract of land near Highwood, Ill., donated to the United States for the establishment of a military post thereon, named in honor of Lieut. Gen. P. H. Sheridan, per General Orders No. 11, series 1888, Adjutant-General's Office.

Col. Z. R. Bliss, Twenty-fourth Infantry, having gone on an extended leave of absence in September, 1887, the headquarters and band, Twenty-fourth Infantry, were transferred to Fort Sill, Lieut. Col. E. P. Pearson, Twenty-fourth Infantry, being in command of that post, and after the return of Colonel Bliss, returned in April, 1888, to Fort Supply, the transfers being made without expense to the Government.

Company I, Fourteenth Infantry (Davis's), arrived and took station at Fort Leavenworth November 27, per letter from Headquarters of the Army, dated November 3, and Special Orders No. 74, series 1887, Division of the Pacific.

The headquarters and band Twenty-second Infantry were transferred in April, 1888, from Fort Lewis to Fort Lyon, Colo.

Pursuant to General Orders No. 20, Headquarters of the Army, April 13, 1888, the following changes of troops to and from this department took place:

Headquarters and nine companies of the Twenty-second Infantry and the Twenty-fourth Infantry left the department June 1, the former for Department Dakota, and the latter for Department Arizona.

Six companies, Sixth Infantry, from the Department of the Platte, arrived at Fort Lewis June 4.

Headquarters and nine companies Thirteenth Infantry, from Department Arizona, assigned to stations by Special Orders No. 59, series 1888, this department, arrived at posts as follows: Headquarters and Companies B (Cavanaugh's), D (Ellis's), H (De Courcey's), at Fort Supply, June 4; Companies G (Chance's) and I (Anman's) at Fort Elliott, June 4; Companies C (Roger's) and E (Bishop's) at Fort Reno June 10; Company A (Guthrie's) at Fort Sill June 9; and Company F (Waterbury's) at Fort Lyon June 3.

Eight troops of the Seventh Cavalry from the Department of Dakota, assigned to stations by Special Orders No. 59, series 1888, this department, arrived at posts as follows: Troops A (Moylan's), B (McDougall's), I (Nowlan's), and L (Wallace's), at Fort Riley July 13 and 14; Troops E (Hsley's), F (Bell's), H (De Rudio's), and K (Mathey's) at Fort Sill August 14.

Companies G (Miller's), H (McLaughlin's), and K (Paul's), Eighteenth Infantry, assigned by Special Orders No. 59, series 1888, this department—G and K to Fort Lyon and H to Fort Hays—left Fort Riley June 7 and arrived at their respective posts June 8.

INDIANS.

There are in the limits of this department about 78,000 Indians, located as follows:

INDIAN TERRITORY.		Population.
Kiowa, Comanche, and Wichita Agency		*4,182
Quapaw Agency		1,019

*Approximate.

	Population.
Osage Agency.....	1,905
Cheyenne and Arapahoe Agency	3,434
Sac and Fox Agency	2,261
Union Agency (five civilized tribes)	61,000
Ponca, Pawnee, and Otoe Agency.....	1,968

STATE OF COLORADO.

Southern Ute Agency.....	1,078
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STATE OF KANSAS.

Pottawatomie and Great Nemaha Agency.....	1,007
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Of these I gather from the reports of post commanders that the Comanche and Apaches are well disposed; the Cheyennes and Arapahoes quiet and prosperous, but that the Kiowas are in part restless and not unanimous in their expression of content.

POSTS.

Of the posts in this department there are being erected two, Fort Sheridan and the Fort near Denver; one being remodeled and rebuilt, Fort Riley. The others, without exception, if they are to be permanent, are in need of extensive repairs and improvements.

Experience in the past proves that a continued occupation of ground as a site for a post without proper sewerage and water-supply results in great sickness and often in epidemics. It should be impressed on those who are responsible for the welfare of the officers and men of the Army that there is no system of sewerage at any of the old posts on the frontier, no proper water-supply, and generally none of the conveniences for bathing and proper sanitation which attach to all residences even for the occupation of laboring men in more modern built towns. The medical corps are doing much in their monthly sanitary reports by pointing out the sources of ill health, and so far as they can be removed by the labor of the troops, the action of the post commanders tend to the eradication of the evil. It is apparent, however, that there must be funds and material provided to make soldiers and officers comfortable in their, to them permanent, homes, or else there will be increased sickness in the Army and increased causes for discontent and desertion. This remark applies to every post in the department except the three above mentioned and Fort Leavenworth.

This latter post, as indicated in reports heretofore made, with estimates submitted, is badly in need of three new barracks for the troops now stationed here. Three of those occupied by troops are old, obsolete, and insecure. Built of wood more than thirty years ago, they are in an advanced state of decay, and so filled with vermin, which can not be destroyed, that they are scarcely habitable. At this post there is a partial sewerage system, but there is need of its extension and connection with all quarters and barracks, both for comfort and the maintenance of health.

At Fort Reno five barracks are complained of as being small and badly ventilated, and the system of water-supply and sewerage needs perfecting.

At Fort Sill extensive repairs are necessary and the post is without a system of sewerage. The same remark applies to Fort Supply.

These three posts from their location are important and likely to be occupied for years to come. The necessary plans for their improvement

will be submitted, and I hope during the coming year that means will be provided for the purpose.

Fort Elliott, situated in the panhandle of Texas, and forming with Supply, Reno, and Sill, a quadrilateral of posts which are important in maintaining the proper police of the Indian country and Texas, through which there is an immense cattle traffic with the north, is in these respects an important post. The lease of the ground upon which it is established expires in about eighteen months. By the terms of the lease the Government has the privilege to purchase the lands (6,400 acres) of the reservation at the rate of \$3 per acre with 10 per cent. added to the purchase-money on the expiration of the lease. At the present time I am not prepared to make recommendation as to what action should be taken. If the post is continued it will need like repairs and improvements to those already stated for the other posts in that section.

In mentioning the posts above, I would not be understood as having covered all the ground. The remarks will apply with equal force to Forts Lewis, and Lyon, and Hays, depending on the length of time they are to be occupied.

While on this subject, I desire to call attention to the great necessity of drill sheds for both cavalry and infantry at all permanent posts in the department. During much of the year the weather is such that drills can not be held in the open air. These seasons are those when the time hangs heavily on both officers and men, and discontent resulting from idleness and ennui causes desertion with the men, and tends to promote vicious habits with the officers. A great source of complaint among young officers who have just joined the Army is the want of something to do. With the expenditure of a few hundred dollars at each post, comfortable shelters could be built in which drills could be conducted during inclement seasons. These sheds would answer for gymnasiums as well as drills where manly sports and athletic exercises could be maintained. With the spirit for improvement now existing in the Army, and the willingness on the part of both officers and men to work at any legitimate part of their profession, the sheds would be of incalculable advantage.

RAILROADS.

Since my last report the following changes have taken place in connection with railroads communicating with posts:

The San Juan extension of the Denver and Rio Grande Railroad has been completed to Fort Crawford, Colo. Trains daily.

The Kansas and Arkansas Railroad, a branch of the Missouri Pacific system, has constructed its road from Fort Smith, Ark., to Wagner, a point on the Missouri Pacific Railroad, and runs within a mile and a half of the post of Fort Gibson, Ind. T.

The Kiowa extension of the Southern Kansas Railroad (Atchison, Topeka and Santa Fé) has been completed to Panhandle, Tex., running within 18 miles of Fort Elliott, Tex. The railroad station is Miami. At Panhandle this road connects with the Fort Worth and Denver City Railroad.

UNITED STATES INFANTRY AND CAVALRY SCHOOL.

The United States Infantry and Cavalry School is in a most satisfactory condition. Its present management has placed the school on a basis which seems to fulfill all the good results hoped for by those who

founded the school. Nothing is left undone to make it a school for the line of the Army, which, in its effects, brings the young officers of the Army, whether promotions from the ranks, appointments from civil life, or graduates of the Military Academy, on a plane of professional proficiency as high as any occupied by young officers of any army. The good effects of this school will, I am sure, be carried into every organization in the line of the Army, and show themselves not only in the attainments of the young officer-graduates, but in their habits.

In this connection I take occasion to repeat a recommendation made while I was superintendent of the Military Academy, that all graduates who are to enter the line of the Army be sent to this or the Artillery School for the post-graduate courses, the object being to instill habits of industry and sobriety in everything, so that the young men entering the Army may have equal opportunities, under careful and competent officers, of forming for themselves habits which will last them through life. It can not be disguised that in some instances the fortunes of young men who are relieved from the discipline of the Military Academy, or from that in the ranks of the Army, are wrecked by their being stationed at posts where bad examples and lax discipline prevail. Such posts, I am glad to say, are exceptional in the Army; but the fact that there is a difference in the first stations of young officers, coupled with the necessity that all should receive instruction in elaboration of education already gained, are sufficient reasons why all should be placed on an equal footing in their profession and start in their new life with conditions as nearly equal as possible. The first few years of service are those which have the most to do with forming the character of the young officer. It therefore needs no lengthy argument to establish the propriety of sending them for first service to the line schools, where selected officers furnish examples and restraints against gambling, drinking, idleness, and other bad habits, to which the young are more or less exposed.

I have pleasure in noting in the department, both in men and officers, their habits and soldierly bearing, which are most excellent. An absence from immediate contact with the Army in the West for the five years preceding this last year, when I was in command at the Academy at West Point, and my experience in the last year, in which I have seen much of the troops of this department, give me unusual opportunities for comparison. In this connection, I note generally that the men are robust, healthy looking, soldierly in their deportment, free, as a rule, from evidences of dissipation, well set up, and apparently having a just pride in the profession. The same may be said of the officers, which, connected with the fact that they all study professional books, take an interest in professional subjects, grumble little, and find ample occupation in professional pursuits, is an encouraging indication for the future of the Army.

In this connection I mention the fact that in the last year, to an officer of my personal staff whose services were offered for the purpose, the officers of this department remitted more than \$100 for the purchase of professional books. Nearly every post in the department was represented in this purchase, which, though not a large matter, is, to my mind, a most favorable indication.

EXAMINATIONS FOR PROMOTION.

I have no hesitation in recommending examinations for promotion in all arms of the service as being in the best interest of the service. The

argument that a legal qualification for promotion would bear unjustly on those who have not had the advantages of a military education is not good. It is my fortune to know intimately many officers promoted from the ranks and from the volunteer service, whose interests I have at heart, and than whom none are better fitted to pass a searching examination in all branches which pertain to their profession. These are the last to take advantage of any plea that they have not had the advantages which would fit them to contend for promotion in their profession in a fair examination testing their fitness for an advanced grade. It is the ignorant, who, through indolence and lack of ambition, neglect professional studies, who would be reached by such a law; and no one will contend that the Army should be made a permanent place of refuge for these. Our Army, with the increased facilities for instruction in all professional matters, should be brought to perfection, so far as the knowledge of officers is concerned. Improvement among the men must result as a consequence. The absence of examinations in the line, while they exist in some of the staff corps, has a tendency to the establishment of *élite* corps in the Army, to which the genius of our organizations, political as well as civil, is opposed. There is no body of men who are better fitted to improve with proper incentives than the Army officers, but the incentive should be supplied in the way of fair standards of excellence. These, properly applied, would arouse the laggards to their duties, or be the means of ridding the service of those whose habits (the only real source of disability) unfit them for the profession.

FORT LEAVENWORTH MILITARY RESERVATION.

The manner in which, through legislation by Congress, corporations obtain parts of the reservation for private and public purposes, including that by which railroad companies have secured rights of way across the reservation, is worthy of attention.

By act of Congress approved July 20, 1868, the Leavenworth Coal Company acquired 20 acres of the reservation located in the southwest corner of the reservation. This act also ceded to the company the exclusive right to mine for all coal underlying the reservation for a term of sixteen years.

Under an act of Congress approved July 27, 1868, a portion of the reservation along its southern boundary, 100 feet wide, and extending from the Missouri River to the western boundary of the reservation, was set apart as a public highway, for the use of the city of Leavenworth. This took from the reservation about 33½ acres.

Under act of Congress approved June 6, 1888, the Leavenworth City and Fort Leavenworth Water Company secured the right to purchase, at a price to be determined by a commission of officers of the Army, 9½ acres lying to the north of that already sold the coal company, as above mentioned. Before this a part of the lands of the coal company had been purchased by the above-mentioned water company. In describing this land, in the bill passed by Congress for the purchase by the water company of the 9½ acres, Metropolitan avenue (having been cut off in its extension to the river by the act selling the coal lands) was run north and south along the west side of the coal company's land, and also east and west on the northern boundary of this land and extending to the river. This, it will be seen, compels the cession by the Government of another tract of land 100 feet wide, running north and south along the 20-acre tract of the coal and water companies, and amounting to about

2½ acres. This is in addition to the 9¾ acres to be appraised and sold to the water company as above indicated.

The Kansas Central Railway was built through the reservation about 1871, without the sanction of an act of Congress. Since that time this road has been sold to the Union Pacific Railroad Company, which has a right of way over all military reservations under the act of Congress approved July 26, 1866.

Under act of Congress approved July 27, 1868, the right of way over the reservation was granted to the Leavenworth, Atchison and Northwestern Railway. This road is now a part of the Missouri Pacific Railroad system.

Under the act approved July 3, 1886, a right of way across the reservation was granted to the Leavenworth, Northern and Southern Railroad.

By act of Congress approved July 20, 1868, all railways approaching the Missouri River bridge were granted a right of way over the reservation. The right under this act has been improved by the Rock Island and Pacific Railway Company, which enters the reservation from the east, having crossed the Missouri River on the bridge, and then turns south to the city of Leavenworth. This road has extensive side-tracks, switches, stock-yards, and warehouses on the reservation. In 1875, on a representation made by the department commander, the Secretary of War decided that this railroad had no authority for these structures on the reservation, and they were ordered removed. These instructions were modified in 1878, and action was deferred to enable the railway company to seek relief from Congress. I can not discover that any further action has been had in this matter by any one.

I inclose a lithograph* of the reservation, with the lines of railways above-mentioned marked. It may be here remarked that the rights of way to railroads across the reservation amount in land to approximately 200 acres. I would also remark that in no instance have the authorities here, that I can discover, been consulted as to the advisability of these grants. So far as Government interests are concerned, I am satisfied this should be done in every case before a bill is passed by Congress.

I have, in special reports forwarded to the War Department, had occasion to call the attention of the proper authority to the rights exercised by the coal company in mining under the reservation, first, by a lease made in 1860, and afterwards by act of Congress in 1868. This privilege, granted by lease and legalized and extended by act of Congress, expired years since, and the coal company has in no instance, so far as can be discovered, observed the terms of remuneration due, under the lease, to the Government.

Referring to the land needed for a reservoir by the water company, if the sale above referred to is not consummated, I would recommend that the water company be permitted to occupy as much land as is necessary for a settling reservoir near the site of its present works, and that this be permitted indefinitely and without expense for rent to the water company. I make this recommendation on the ground that the water company is a benefit to the post, as well as to the city of Leavenworth, and because the giving of land which is necessary for a public purpose free of rent by the Government is better for the interests of all than to sell at any price land which may in course of time be devoted to purposes hurtful to the reservation.

In this remark I do not wish to be understood as intimating that the

* Omitted.

present purchasers have ulterior designs, but as it is known that only part of the purchase is to be at present used for the site of a reservoir, and as the lands and water-works may pass into other hands, it is only fair to Government interests that there should be some safeguard against the lands being used for any other than legitimate purposes.

In this connection I have doubts as to the necessity of extending Metropolitan avenue beyond its termination on the east by the land ceded to the coal company. The object for which it was ceded was to give the citizens of Leavenworth a thoroughfare along the northern limits of the city, and between it and the reservation. To turn it north at the coal lands, and then run it east to the railroad, or river, between the present reservoir and the land to be sold would not accomplish this object, and yet this is what is contemplated by the bill passed by Congress at the instance of the water company, as will be seen by the inclosed map of the reservation. If, however, the water company purchases the land as provided by Congress, the avenue will have to stand as described in the act.

I would not close this report omitting specially to commend the management of the military prison under its present administration. Without in any way reflecting on those heretofore in command, it can be said that the prison discipline and production were never better. I note the fact that the shoes made at the prison are particularly liked by officers and men at posts in the department. The ample experience of Captain Pope as quartermaster of the prison, combined with his talents as an executive officer, have assured the prison its present excellent condition.

Herewith are forwarded the reports* of the chiefs of the several staff departments at these headquarters which convey particulars worthy of attention in each department. Everything under their control is well managed and deserves commendation.

The recommendations of Major Sumner, department inspector of rifle practice, are worthy of consideration, and, in my opinion, the changes urged should be made, especially that as to skirmish firing.

In the report of Captain Murray, acting judge-advocate, it will be seen that desertions in the department have not diminished. It is safe to say that no material change for the better will be accomplished until the certainty of apprehending those who desert is increased. A means to this end would be an increase of the amount paid for the apprehension of deserters. Next, some plan by which the enlistment of professional deserters could be prevented should be adopted. Marking all men who enlist would accomplish this, and I can not conceive that a mark as an evidence of joining the Army, made a part of the contract by the recruiting regulations, would be objectionable to the well intentioned. The mark, or marks, as has been suggested, could be made to answer the purpose of identification, and should be placed to indicate the points on the limbs where pressure should be applied to prevent serious hemorrhage in the event of wounds.

Another method of preventing the enlistment of men who had left the service dishonorably, would be identification by means of their descriptive lists, supplemented by a system of measurements known as the "Bertillon method of identification."

This matter of desertion, its causes, and the means of preventing the same, have been discussed from every point of view. The condition of the enlisted man has been much improved consequent on this agitation,

* Omitted.

and it is now certain that but a small percentage of those who desert have any good reason for the crime so far as the service is concerned. One class of deserters leave the service because of viciousness, and another for light reasons resulting, during the first year, from discontent and perhaps homesickness. A system resulting in the identification would diminish the first, and more certainty of apprehension would very materially reduce the other class.

The benefits which would result to the Army from eradication of the crime of desertion justify unusual exertions to that end, and it rests with those who are in charge of recruiting to make attempts at reformation beyond those already made, which in the past have unjustly reflected on the treatment given the enlisted man by line officers of the Army.

To illustrate what has been said above as to the causes of desertion, I call attention to Table II,* page 5, of acting judge-advocate's report. A reference to this shows that at the post of Fort Crawford, Colo., the desertions amount to 11.7 per cent. of the enlisted strength of the command. The largest percentage of desertion for the year is 16 per cent. at Fort Lewis, Colo., the smallest, 1.6 per cent., at Fort Sill, Ind. T. Now, at Fort Crawford, which I lately visited, they have one of the most attractive locations to be found in this country. The air is pure and cool, the water excellent, and sickness is unknown. The officers of the post, from the commanding officer to the junior lieutenant, are kind and considerate to the men, and encourage them in hunting and fishing, and in manly sports and recreations. The gardens are exceptionally good and the tables of the enlisted men are overloaded with the best of fare. The appointments of the barracks, dormitories, kitchens, and dining-rooms of the men were perfect in every detail, and cleanliness, contentment, and health were the prevailing features everywhere. In short, I have never seen a neater, better kept post in every way than that at Fort Crawford. Now, why should more men desert from Fort Crawford than from any other one of the three-fourths of the posts of the department, and why should the percentage of desertion be seven times greater than at Fort Sill? The answer is plain. Fort Crawford is situated in the midst of a mining country, and all that is necessary for a man to desert is simply to make up his mind to go. It may be an impulse, arising from homesickness, a desire for change, or a temporary discontent, but once formed, and the resolution executed, the man escapes, and however much he may regret his step, does not return and is scarcely ever apprehended. At several of the other posts, and at Fort Sill particularly, the deserter, having to traverse an extended country not occupied by white men, is almost inevitably apprehended. The figures show that of all deserters in the department for one man apprehended and punished more than ten escape free.

Very respectfully, your obedient servant,

W. MERRITT,
Brigadier-General, Commanding.

The ASSISTANT ADJUTANT-GENERAL,
Division of the Missouri, Chicago, Ill.

* Omitted.

REPORT OF BRIGADIER-GENERAL BROOKE.

HEADQUARTERS DEPARTMENT OF THE PLATTE,
Omaha, Nebr., August 30, 1888.

SIR: I have the honor to submit this as my report for that portion of the year during which I have been in command of this department.

I assumed command May 5 last, in accordance with the order of the President, published in General Orders No. 23, Headquarters of the Army, April 25, 1888.

The entire quiet of the department has not been broken since I assumed command, except in case of the people on Hat Creek, near Oelrichs, Dak., who were very much frightened in May last by the presumed hostile threats of Indians moving through that section. Investigation proved that there was no cause for alarm; that there was no intention on the part of the Indians to disturb the settlers; that the misunderstanding was the result of the inability of the settlers to understand the Indians.

At this time there is considerable uneasiness on the part of the people of northern Nebraska on account of the attitude of the Indians at Pine Ridge and Rosebud Agencies regarding the opening of the Sioux Reservation. For this reason I modified the original order withdrawing the garrisons of Forts Robinson and Niobrara to a general camp of instruction near Kearney, Nebr.

On account of the appearance of parties of Indians in the vicinity of Fort McKinney, I directed that the garrison of that post remain there and gather up the roaming Indians and return them to their agency. Troop D, Ninth Cavalry, is now on the way to the Tongue River Agency with Lost Bull and fifty-four other Cheyennes. Troop H, Ninth Cavalry, is now scouting for other parties of Indians reported to be hunting on the tributaries of Little Powder River and alarming the settlers.

The movements of troops within the department comprised the changing of the garrison of Fort Du Chesne to other posts and sending there companies from other points, and the transfer of the six companies of the Sixth Infantry to the Department of the Missouri, and the arrival of the Sixteenth Infantry from the Department of Texas for duty in this department.

At present the following troops are serving in the department, and are distributed as follows:

CAVALRY.

Ninth Regiment.—Headquarters and band at Fort Robinson, Nebr.

Troop A, at Fort Niobrara, Nebr.	Troop G, at Fort Niobrara, Nebr.
Troop B, at Fort Robinson, Nebr.	Troop H, at Fort McKinney, Wyo.
Troop C, at Fort Duchesne, Utah.	Troop I, at Fort Robinson, Nebr.
Troop D, at Fort McKinney, Wyo.	Troop K, at Fort Robinson, Nebr.
Troop E, at Fort Washakie, Wyo.	Troop L, *
Troop F, at Fort Robinson, Nebr.	Troop M, at Fort Duchesne, Utah.

ARTILLERY.

Light Battery D, Fifth Regiment, at Fort Douglas, Utah.

* On duty at United States infantry and cavalry school, Fort Leavenworth, Kans.

INFANTRY.

Second Regiment.—Headquarters and band at Fort Omaha, Nebr.

Company A, at Fort Omaha, Nebr.	Company F, at Fort Omaha, Nebr.
Company B, at Fort Omaha, Nebr.	Company G, at Fort Omaha, Nebr.
Company C, at Fort Omaha, Nebr.	Company H, at Fort Omaha, Nebr.
Company D, at Fort Omaha, Nebr.	Company I, at Fort Omaha, Nebr.
Company E, at Fort Omaha, Nebr.	Company K, at Fort Omaha, Nebr.

Seventh Regiment.—Headquarters and band at Fort Laramie, Wyo.

Company A, at Camp Pilot Butte, Wyo.	Company F, at Fort Laramie, Wyo.
Company B, at Fort Laramie, Wyo.	Company G, at Fort Washakie, Wyo.
Company C, at Fort Laramie, Wyo.	Company H, at Camp Pilot Butte, Wyo.
Company D, at Fort Laramie, Wyo.	Company I, at Fort Washakie, Wyo.
Company E, at Fort Laramie, Wyo.	Company K, at Fort McKinney, Wyo.

Eighth Regiment.—Headquarters and band at Fort Niobrara, Nebr.

Company A, at Fort Niobrara, Nebr.	Company F, at Fort Niobrara, Nebr.
Company B, at Fort Niobrara, Nebr.	Company G, at Fort Niobrara, Nebr.
Company C, at Fort Robinson, Nebr.	Company H, at Fort Niobrara, Nebr.
Company D, at Fort Robinson, Nebr.	Company I, at Fort Robinson, Nebr.
Company E, at Fort Niobrara, Nebr.	Company K, at Fort Robinson, Nebr.

Sixteenth Regiment.—Headquarters and band at Fort Douglas, Utah.

Company A, at Fort Duchesne, Utah.	Company F, at Fort Duchesne, Utah.
Company B, at Fort Douglas, Utah.	Company G, at Fort Douglas, Utah.
Company C, at Fort Duchesne, Utah.	Company H, at Fort Douglas, Utah.
Company D, at Fort Douglas, Utah.	Company I, at Fort Douglas, Utah.
Company E, at Fort Douglas, Utah.	Company K, at Fort Duchesne, Utah.

Seventeenth Regiment.—Headquarters and band at Fort D. A. Russell, Wyo.

Company A, at Fort D. A. Russell, Wyo.	Company F, at Fort D. A. Russell, Wyo.
Company B, at Fort D. A. Russell, Wyo.	Company G, at Fort D. A. Russell, Wyo.
Company C, at Fort D. A. Russell, Wyo.	Company H, at Fort Bridger, Wyo.
Company D, at Fort Bridger, Wyo.	Company I, at Fort D. A. Russell, Wyo.
Company E, at Fort D. A. Russell, Wyo.	Company K, at Fort D. A. Russell, Wyo.

Twenty-first Regiment.—Headquarters and band at Fort Sidney, Nebr.

Company A, at Fort Sidney, Nebr.	Company F, at Bridger, Wyo.
Company B, at Fort Douglas, Utah.	Company G, at Fort Sidney, Nebr.
Company C, at Fort Sidney, Nebr.	Company H, at Fort Bridger, Wyo.
Company D, at Fort Bridger, Wyo.	Company I, at Fort Sidney, Nebr.
Company E, at Fort Sidney, Nebr.	Company K, at Fort McKinney, Wyo.

The following is a general record of events during the year:

The following competitions were held on the Bellevue rifle range, Nebraska:

August 15-20.—Annual competition for places on the rifle team of this department, under direction of Maj. Guy V. Henry, Ninth Cavalry, inspector of rifle practice of the department.

September 6-9.—Annual competition for places on the rifle team of the Division of the Missouri, under direction of First Lieut. Philip Reade, Third Infantry, inspector of rifle practice of division.

September 19-21.—First biennial competition of the team of distinguished marksmen of the Army, held under direction of Major Henry.

August 18.—On or about this date, Charles Parker, the man who robbed Maj. D. N. Bash, paymaster, of certain public funds at Antelope Springs Station, Wyo., on March 18 last, was arrested by civil au-

thorities in the sand hills on the Dismal River, Nebraska; he was subsequently arraigned at Laramie City, Wyo., pleaded guilty, and was sentenced to the penitentiary at the latter place.

August 27.—In obedience to orders of the President and instructions of the major-general commanding the Division of the Missouri, under date of August 26, Brig. Gen. George Crook left Omaha, Nebr., and proceeded to Meeker, Colo., to confer with the governor of Colorado regarding Indian troubles in that locality and to endeavor to secure the peaceable removal of Chief Colorow and his band of Indians to their reservation in Utah. The conference with the governor was held at Meeker August 31 and September 1. The troubles originated in an attempt by the civil authorities to execute civil process against a number of Indians of Colorow's band which has roamed in Garfield County, Colo., for many years. The following are the circumstances so far as they have been learned: On August 9, 1887, Game Warden Joseph A. Burgett, of Garfield County, Colo., with a posse, appeared unexpectedly at a camp of these Indians on the north fork of the White River, and, it is understood, without explanation, made an attempt to arrest a number of the Indians on warrants charging them with violation of the game laws of Colorado; the Indians resisting, the posse fired, wounding three of the Indians. The game warden's posse then retired and united with another posse under Sheriff James C. Kendall, of Garfield County, who held warrants for the arrest of two Indians of the same band, against whom indictments had been found for horse-stealing. The sheriff, after several attempts, in which shots were exchanged between the posse and the Indians, failed to serve the warrants he held. Subsequently, at a conference between the Indians and two prominent citizens of Meeker, the former, while declining to surrender any of their number to the civil authorities, agreed to retire to their reservation if allowed fifteen days in which to gather their stock, etc.; this the Indians understood was agreed to, and they proceeded to collect their herds in preparation to move. Not considering himself bound by this agreement, Sheriff Kendall and his posse at the end of three days (on August 20) again started in pursuit of the Indians who, he claimed, were seeking time to prepare for war. On the 24th the sheriff's posse, now increased to about eighty men, was joined by one hundred of the Colorado State militia under Major Leslie. These troops had been sent out by Brigadier-General Reardon, Colorado State National Guard, in command of State troops at Meeker, who had orders from the governor of Colorado to assist Sheriff Kendall in executing civil process against the indicted Indians. The Indians (about twenty-five fighting men and their families), on moving nearer to the reservation, were followed by the State troops and the posse, who surprised and opened fire on them about 7 a. m., August 25, at a point about 10 miles west of Rangely, Colo. The Indians sought cover and returned the fire for about three and a half hours, and in the afternoon retreated toward the agency, abandoning their stock and other property. The State forces and posse subsequently withdrew to Rangely, having had three men killed and several wounded. The Indians had one man, one boy, and two small girls killed, and several wounded; they had previously lost one boy while retreating through Colorado before Sheriff Kendall and posse; the Indians up to this time (August 25) had also suffered a loss in stock which is estimated at between three hundred and four hundred head of horses, and about two thousand five hundred head of sheep and goats. When the above news reached the reservation it was feared that if the attack on Colorow's band were renewed the reservation Indians would attempt to assist him and an outbreak result.

To prevent this, First Lieut. G. R. Burnett, Ninth Cavalry, with his detachment of twelve men (who had left Fort Duchesne August 22), then at the Ouray Agency (on Green River) witnessing annuity payments to the Indians, accompanied by Interpreter Curtis and by a large and increasing band of well-armed Uncompahgre Utes, proceeded (about 3.30 p. m., August 25) to the Colorado boundary line of the reservation, where, in a conference held next day by Lieutenant Burnett with Major Leslie, the latter (on being apprised of the situation) decided not to attempt to enter the reservation without due legal authority. Colorow and his band were induced to return to the agency, which they reached August 27. Total distance traveled by Lieutenant Burnett and his detachment, 110 miles.

At the conference held between the governor of Colorado and General Crook, it was decided not advisable to station troops along the Colorado line, and that efforts should be made to return to the Indians, as far as practicable, their lost stock. Later, the governor on request of the President, gave directions that so far as was possible the Indians' stock be returned to them. Up to last information, one hundred and twenty-five ponies, and very recently a few more, had been returned. At latest advices Colorow and his band were at the Ouray Agency, on Green River, and were reported as quiet.

August 28.—Troop B, Ninth Cavalry, Capt. Byron Dawson commanding, left Fort Duchesne, Utah, being re-enforced at the Ouray Agency (on Green River) by Lieutenant Burnett and a detachment of twelve men, same regiment, and proceeded to Meeker, Colo., to report to the department commander at that point for duty in connection with Ute troubles. Having performed this duty the command returned to Fort Duchesne, Utah, arriving September 8. Total distance marched 286 miles. Lieutenant Burnett, with a detachment of six men, was left at the Ouray Agency (on Green River) until October 16, when he rejoined his post.

September 9.—Companies A and K, Sixth Infantry, Captain Penney, commanding, left Fort Douglas, Utah, and proceeded by rail to Price Station, on the Denver and Rio Grande Western Railroad, 130 miles distant, to repair the wagon road between that station and Fort Duchesne, Utah. On October 26, the battalion had repaired the road from Price Station to Nine-Mile Cañon, about 32 miles distant. On October 30, Company K, Sixth Infantry, was withdrawn. It left camp that date and returned to Fort Douglas, arriving there November 2. Upon completion of the work Company A, Sixth Infantry, Lieutenant Walker, commanding, also returned to its station, Fort Douglas, arriving there November 22.

September 13.—From this date detachments of the troops stationed at Fort Washakie, Wyo., were employed in the field constructing a military telegraph line from Rawlins, Wyo., to that post. Second Lieutenant John C. Walshe, Signal Corps, is in charge of the work.

October 3.—Company D, Seventeenth Infantry, Captain O'Brien commanding, left Fort D. A. Russell, Wyo., and proceeded by rail to Fort Bridger, Wyo., where it arrived and took station October 4. Distance traveled, 402 miles.

October 3.—Company F, Seventh Infantry, with detachment of nine men, same regiment, Captain Williams commanding, left Fort Laramie, Wyo., and proceeded to Running Water, Nebr., from that point to put in thorough repair the military telegraph line between Forts Laramie, Wyo., and Robinson, Nebr.

October 17.—Troop I, Ninth Cavalry, Captain Hughes commanding,

left Fort Niobrara, Nebr., and marched to Fort Robinson, Nebr., where it arrived and took station October 26. Distance marched, 185 miles.

October 18.—Troop K, Ninth Cavalry, Captain Parker commanding, left camp near Cheyenne, Wyo., and marched to its proper station, Fort Robinson, Nebr., where it arrived October 24. Distance marched, 170 miles.

October 27.—In pursuance of telegraphic instructions from the commanding general, Division of the Missouri, dated October 23, Troops D and H, Ninth Cavalry, Captain Dimmick commanding, followed on the next day by Company C, Seventh Infantry, Captain Benham commanding, left Fort McKinney, Wyo., to march to Grass Lodge Creek on the old Fort C. F. Smith road (in Department of Dakota), to intercept and arrest any Crow Indians found escaping from their reservation towards the Shoshone country—the Crows being reported mutinous, resisting arrest, and threatening to fight should their arrest be attempted. The cavalry reached the point above designated on the 29th and left again same day en route to the Crow Agency, under orders of commanding general, Department of Dakota, under whose command both cavalry and infantry were now placed, arriving there October 31. Captain Benham, with the infantry, on reaching Ohlman on the 31st, received the order changing destination of the command, and he also proceeded to the Crow Agency, arriving there November 1. On November 5, during a skirmish between other troops and hostile Crow Indians, Troops D and H, Ninth Cavalry, Captain Dimmick commanding, were stationed on the road to the north and west of the agency to intercept any escaping in that direction. About 6 p. m. same date, Troop H, Captain Dimmick commanding, was detached to assist in arresting Deaf Bull and his followers at their camp 18 miles distant; they not being found there, Troop H, returned to the agency November 6. Captain Benham, with his own company and one of the Third Infantry, was charged with protection of the agency during the skirmish. On November 12 the command, being relieved from further duty in the Department of Dakota, was placed en route to Fort McKinney, Wyo., where it arrived November 15, 1887. Total distance traveled, going and returning, by cavalry about 285 miles, by infantry 214 miles.

November 5.—Companies F and K, Sixth Infantry, Major Lyster commanding, left Fort Douglas, Utah, at 6 a. m. and proceeded by rail to Chicago, Ill., to take station at new post to be established at Highwood, near that city.

Fort Fred Steele, Wyo.—The custodian (Mr. E. W. Bennett), appointed by the Interior Department, assumed charge of the reservation and public buildings at this post September 29, and the guard from Fort D. A. Russell, Wyo., which has been kept there since the date of abandonment of the post, was withdrawn to its proper station October 23.

November 9.—Company F, Seventh Infantry, Captain Williams commanding, rejoined station, Fort Laramie, Wyo., having repaired military telegraph line between that post and Fort Robinson, Nebr. Total distance traveled, 166 miles.

December 12.—Reconstruction of military telegraph line between Rawlins and Fort Washakie, Wyo., completed by the troops.

December 29.—In compliance with instructions of the Lieutenant-General commanding the Army, communicated from headquarters Division of the Missouri, Company E, Sixth Infantry, Captain Britton commanding, an outlying guard stationed in Salt Lake City, Utah, withdrawn to Fort Douglas, Utah.

January 14.—Subsistence store-house at Fort McKinney, Wyo., subsistence stores therein valued at \$8,950, and subsistence property also therein valued at about \$450, were accidentally destroyed by fire about 1 o'clock a. m. Supplies replaced from the subsistence depot at Omaha, Nebr., reaching Fort McKinney, Wyo., February 4, 1888. On account of the severity of the weather, transportation of these stores from Crazy Woman's Fork, about 25 miles from Fort McKinney, was expedited by Troop D, Ninth Cavalry, Lieutenant Powell commanding, which left the post February 2, and returned the succeeding day.

January 18.—Troop B, Ninth Cavalry, Captain Dawson commanding, left Fort Duchesne, Utah, and proceeded to clear the road between that post and Price Station, Utah, which had become impassable on account of snow-drifts; returned to post January 28, having completed the work. Total distance traveled, 140 miles.

May 1.—A detachment of a sergeant and ten privates left Fort Washakie, Wyo., to repair telegraph line between Fort Washakie and Rawlins, Wyo. Completed repairs and returned to post May 22, 1888.

May 28.—Troops F and I, Ninth Cavalry, Captain Hughes commanding, left Fort Robinson, Nebr., for Oelrichs to investigate alarm on account of Indians in that vicinity. Marched to Sand Creek, Nebr., and after detaching Lieutenant Stevens, with four men, to continue to investigate the cause of apprehension, the alarm having abated, returned to post May 29. Distance traveled, 24 miles.

May 30.—Headquarters, companies B and H, Sixteenth Infantry, Colonel Blunt commanding, arrived at Fort Douglas, Utah, from Department of Texas. Distance traveled by rail from El Paso to Salt Lake City, 1,395 miles; marched to Fort Douglas, 3 miles.

June 1.—Companies A, B, C, D, E, and G, Sixth Infantry, Lieutenant-Colonel Osborne commanding, marched from Fort Douglas, Utah, at 9.30 a. m., en route to Fort Lewis, Colo.

June 2.—Companies A, C, D, E, F, G, I, and K, Sixteenth Infantry, Lieutenant-Colonel Hough commanding, arrived at Fort Douglas, Utah, from Department of Texas. Distance traveled from San Antonio, Tex., to Salt Lake City, 2,085 miles; marched 3 miles.

June 5.—Companies A, C, F, and K, Sixteenth Infantry, Lieutenant-Colonel Hough commanding, marched from Fort Douglas, Utah, en route to Fort Duchesne, Utah; arrived at Fort Duchesne, Utah, June 19. (Distance, 156 miles.)

Troop C, Ninth Cavalry, Captain Conlin commanding, marched from Fort Robinson, Nebr., for Fort Duchesne, Utah, via Douglas, Wyo., Rock Creek Wyo., Rawlins, Wyo., and Green River City, Wyo.; arrived July 11.

June 10.—The steamers *General Terry* and *Helena*, of the Benton Line, touched at Omaha, Nebr., about 5 p. m., with the Fifth Infantry, Colonel Gibson commanding, en route from Fort Keogh, Dak., via Bismarck and Kansas City, to Texas. The *General Terry*, in passing under the Union Pacific Railway bridge, struck a pier, tearing a hole in her hull. She was immediately run aground on the right bank of the river, but not until the water was over her main deck. The steamer *Helena* returned to render assistance, but next day proceeded to Kansas City. The troops which were on board the sunken steamer—companies A, D, F, and G, Lieutenant-Colonel Cochran commanding—encamped in the vicinity of the wreck, and saved such of the public and private property as was possible, and left by rail for Kansas City June 23.

June 11.—Troop M, Ninth Cavalry, Captain Rucker commanding, marched from Fort Washakie for Fort Duchesne via Green River City,

Wyo.; arrived June 27. Distance, 330 miles. (Fort Washakie to Green River City estimated 170 miles; Green River City to Fort Duchesne estimated 160 miles.)

June 21.—Company B, Twenty-first Infantry, Captain Jocelyn commanding, left Fort Duchesne, Utah, and marched to Fort Douglas, Utah, arriving June 30. Distance, 156 miles.

Companies F, I, and K, Twenty-first Infantry, Captain Cornman commanding, left Fort Duchesne, Utah, and marched to Fort Bridger, Wyo., arriving June 29. Distance, 123 miles.

June 29.—Troop E, Ninth Cavalry, left Fort Duchesne, Utah, and marched via Green River, Wyo., to Fort Washakie, Wyo., arriving July 14. Estimated distance 330 miles.

July 1.—Company I, Twenty-first Infantry, marched from camp at Fort Bridger, Wyo., to Carter Station, Wyo. (distance 11 miles), and thence by rail to Fort Sidney, Nebr., arriving July 2. Distance, 490 miles.

Company K, Twenty-first Infantry, marched from camp at Fort Bridger, Wyo., to Carter Station, Wyo. (distance 11 miles), and thence proceeded by rail to McCollough's Station, on the Cheyenne Northern Railroad, thence by march to Fort McKinney, Wyo., 220 miles, arrived July 14. Total distance traveled, by rail, 511 miles; marched, 357 miles.

July 16.—Troop B, Ninth Cavalry, First Lieut. F. Beers Taylor commanding, left Fort Duchesne, Utah, and marched via Rawlins, Wyo., for Fort Robinson, Nebr.; arrived August 16. Distance marched, 456 miles.

July 17.—Company C, Seventh Infantry, Captain Benham commanding, marched from Fort McKinney, Wyo., for Fort Laramie, Wyo.; arrived July 27. Distance marched, 223 miles.

The garrisons in the department, except at Fort McKinney and Camp Pilot Butte, are now moving to or are in the several camps of instructions, as indicated in the inclosed copies of Circulars Nos. 2 and 12, current series, from these headquarters, except two companies at Fort Duchesne and one at Fort Washakie. At other posts sufficiently large detachments have been left to care for the public property and buildings and to gather the crops of the gardens.

A special report will be made, soon after the troops return to their posts, of the results of this concentration of the various garrisons.

The condition of the buildings at the various posts is such as to require quite large expenditures in repairs during the coming year. Certain posts are still incomplete, viz: Forts Niobrara, Robinson, Russell, and Duchesne. At Fort Omaha, even though the new post should be completed within two years, considerable repairs are now needed to make many of the officers' quarters and some of the company quarters habitable during the coming winter. Forts Robinson and Niobrara are of great importance as military posts, and their garrisons should be largely increased at an early day. At Forts Niobrara, Robinson, and Laramie a personal inspection showed to me the want of adequate storehouses. Those now in use at Fort Niobrara are in a deplorable condition, giving but slight protection to property stored in them. At Fort Robinson they are in better condition than this, but require to be rebuilt and enlarged to properly meet the requirements. At Fort Laramie re-roofing and other repairs are needed to afford protection to the stores of the quartermaster's department.

This part of my report would be incomplete if I did not mention the necessity for prompt action in providing for the completion of the offi-

cers' quarters at Fort Duchesne, which are now of the most temporary and inadexuate character.

The inspection of the troops in the Department is now in progress, and will not be completed in time to include the result in this report.

The results of target practice during this season are in the main satisfactory. There has been an advance in the standing of the department over that of last year which is highly creditable under the circumstances of a reduction of ammunition allowance.

I would invite attention to the reports* of chiefs of staff departments for the details of business in their respective branches of the service, and desire herewith to express my appreciation of the able manner in which their duties have been performed.

Very respectfully, your obedient servant,

JOHN R. BROOKE,

Brigadier-General, U. S. Army, Commanding.

The ASSISTANT ADJUTANT-GENERAL, U. S. ARMY,
Headquarters Division of the Missouri, Chicago, Ill.

REPORT OF COLONEL PARKE.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., September 25, 1888.

SIR: I have the honor to submit the following report of the operations at the Military Academy for the fiscal year ending June 30, 1888.

The funds for the support of the Academy for the year were made available by the appropriation act of March 1, 1887 (Statutes at Large, vol. 24, page 436).

The act is made up of a number of specific items, but may be grouped under the following heads, viz:

- (1) Pay.
- (2) Current and ordinary expenses.
- (3) Miscellaneous and incidental expenses.
- (4) Buildings and grounds.

All the items of appropriation under the first head are disbursed by officers of the Pay Department of the Army, under instructions from the Paymaster-General, and the amounts due are paid directly to the parties named in the law, except in the case of that for the cadets. The amount due cadets is transferred periodically by the paymaster, on receipted pay-rolls, to the treasurer of the Military Academy, who disburses it for the support and maintenance of the corps of cadets under law and regulations, keeping an account-book for each cadet, wherein every item of receipt and expenditure is recorded. For detailed information respecting duties of the treasurer, quartermaster, and commissary of cadets, I beg to refer to his annual report,* copy herewith.

The remaining items of appropriation, under the general heading of "Current and ordinary expenses," "Miscellaneous and incidental expenses," and "Buildings and grounds," are, under the regulations, disbursed by the quartermaster of the Academy, who is also the post quartermaster.

The current and ordinary expenditures embrace items for repairs and improvements; fuel and apparatus; gas-pipes and fixtures; postage and

* Omitted.

telegrams; stationery; transportation of discharged cadets; material and ferrriage; printing; services of clerks to quartermaster and disbursing officer, to adjutant, and to treasurer; for scientific and technical apparatus and supplies; text-books, stationery, models, specimens, and other incidental expenditures rendered necessary during the progress of work in the various departments of instruction, and also for the Board of Visitors.

The miscellaneous and incidental appropriations embrace items for gas-coal and material for lighting the public buildings and post; for water-pipes and repairs; for labor and material used in cleaning public buildings; material used in recitation-rooms; compensation of librarian and of organist; pay of engineer, assistant engineer, and firemen employed in heating public buildings; and of librarian's assistant; for increase and expense of library, including furniture and repairs; furniture and repairs to cadet hospital and for recitation-rooms; contingencies for the superintendent and for the Academic Board.

Under the head of buildings and grounds are found the items for repairing roads and paths; continuing construction of breast-high wall; erection of brick quarters for enlisted men with families; remodeling and rebuilding the academic building; erection of a gymnasium for cadets; erection of new shops for mechanics employed in the quartermaster's department; repairs to north wharf; and for repairs and maintenance of water-works.

Soon after entering upon the duties of Superintendent my attention was called to the appropriations for quarters for enlisted men, for shops, for academic building, and for gymnasium.

Steps were taken to secure proper sites and plans for the quarters and shops, and these structures are now rapidly approaching completion. For detailed information in regard to these I must invite attention to the report of the quartermaster of the Academy, herewith.

Respecting the academic building and gymnasium, it was found that the appropriation in each case was altogether inadequate. After a full investigation, a report in regard to the academic building, giving the views and conclusions, with recommendation of the Academic Board, together with an estimate of cost, was submitted to the Secretary of War on February 8, 1888, and will be found printed in Executive Document 190, House of Representatives, Fiftieth Congress, first session.

A report in regard to the gymnasium, giving project, with estimate of cost, approved by the Academic Board, was submitted to the Secretary of War March 22, 1888, and will be found printed in Executive Document 138, Senate, Fiftieth Congress, first session.

For detailed information a reference to these documents is respectfully invited.

On April 16, 1888, a bill (H. R. 9409) was introduced in the House of Representatives "For the erection of an academic building and gymnasium at West Point," and referred to the Committee on Military Affairs. On May 2 the committee recommended the passage of said bill, and submitted a report to accompany the same, which may be found printed as Report No. 2029, House of Representatives, Fiftieth Congress, first session.

As it is not likely that action will be taken during the present session, I have deemed it my duty to embody the estimates for these two structures in the annual estimate, in order that they may come regularly before the committee at the beginning of the next session, when the bill for the support of the Military Academy is under consideration.

In regard to the number of officers and cadets on duty, I beg to make the following extract from the report of the adjutant:

The changes in the personnel of officers and cadets for the year ending September 1, 1888, have been as follows:

OFFICERS.

Strength, September 1, 1887	59
Alterations during the year:	
Relieved	18
Joined	20
Strength September 1, 1888	61

The above includes the swordmaster and teacher of music and does not include one officer authorized to delay reporting for duty until September 17.

CADETS.

Strength, September 1, 1887	304
Alterations during the year:	
Resigned	17
Discharged	51
Died	1
Graduated	44
Total loss	113
Admitted	101
Strength, September 1, 1888	292

Referring to the band the adjutant writes:

U. S. MILITARY ACADEMY BAND.

The strength of the band as allowed by law is as follows:

	Per month.
Six musicians, first class, at	\$34.00
Six musicians, second class, at	20.00
Twelve musicians, third class, at	17.00

The experience of another year has only more clearly demonstrated the unsatisfactory condition of the band, both as to its strength and the pay received by its members; in this connection I desire to quote from my last report: "The necessity for an increase of the band is so apparent that it would seem unnecessary to urge it here, but I should fail in my duty as its commanding officer if I did not point out the fact that, though the Board of Visitors in 1876 recommended a reduction of the band from forty to twenty-four members, the Board of Visitors the very next year strongly urged its restoration to its former strength. (See report Board of Visitors, 1887, p. 12.)

"As all the leading military bands in the country have a strength of from thirty-five to sixty-five musicians, it is thought not too much to ask that the Military Academy band be increased to thirty-two members, composed as follows:

	Per month.
Eight musicians of the first class, at	\$34.00
Eight musicians of the second class, at	24.00
Sixteen musicians of the third class, at	17.00

"When it is considered that this number—thirty-two—was that allowed in 1821, when the population of the United States was about ten million, and the strength of the corps of cadets was about two hundred and forty, the request is thought to be but a modest one. The present cost of the band is \$10,600 per annum. Attention is invited to data concerning the band contained in report Board of Visitors, for 1884, p. 42."

With the limited pay allowed it is found quite difficult to keep the band recruited to its full strength with satisfactory musicians.

While this is a military band, recognized by law and supported by specific appropriations, there is no appropriation for either the purchase and repair of instruments

or for music, and I have accordingly to request that in the annual estimate for appropriations for support of the United States Military Academy for the fiscal year ending June 30, 1890, the following item be inserted: "For purchase and repair of band instruments, \$500." I would also request that the above appropriation be made so that it can be expended under the direction of the Superintendent by purchase in open market, without advertising, as the delay incident to advertising in the case of repair of instruments would in a great measure defeat the object of the appropriation.

An appropriation for the purchase and repair of instruments for band is recommended, and an estimate therefor is embraced in the annual estimates.

The instructor of practical military engineering reports in reference to the water supply and pipe line as follows:

The water supply during the year has been ample and satisfactory for the present needs of the post.

In the fall of 1887 the small reservoir at the "Cascades" was rebuilt and enlarged. A new waste weir has been put in at Sinclair reservoir during the past summer.

No unusual repairs are now foreseen to be necessary, and the usual annual appropriation of \$520 will probably be sufficient to keep the water supply in a state of efficiency.

An estimate is submitted, and it is recommended that the usual annual appropriation be made.

I take the liberty of again inviting attention to the disadvantages of permitting candidates to report for examination at any other time than June. This subject has had careful consideration by those well informed, and I am clearly of the opinion that the best interests of all concerned call for a modification of the existing practice. In this connection I beg that reference be had to the report of the Academic Board of December 5, transmitted by letter of December 7, 1887, from these headquarters.

The commandant of cadets, in his annual report, just received, refers to this subject as follows:

I would respectfully suggest that every effort be made to break up the custom of sending candidates to the Academy in September. The purely military part of instruction is an essential feature, and that which is given during the first encampment is lost to September members. They enter upon their studies at once, being totally ignorant of a necessarily rigorous system of regulations with which the June members have had time to become familiar, and meantime they must undergo the fatiguing squad drill and miss entirely the more advanced instruction with the company and battalion, so that upon the resumption of the spring drills they are still deficient and create confusion in the ranks, the general progress being retarded.

Moreover, it is impossible to isolate the September members as effectually as is done with those who enter in June. These have the opportunity to become habituated to the novelty of their surroundings and to know and maintain their own rights; the September members have to meet everything at once.

Very respectfully, your obedient servant,

JOHN G. PARKE,

Colonel of Engineers,

Brevet Major-General, U. S. Army, Superintendent.

The ADJUTANT-GENERAL, U. S. ARMY,

Washington, D. C.

REPORT OF COLONEL TIDBALL.

UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., September 1, 1888.

GENERAL: I have the honor to submit the following report of the operations of the Artillery School for the year ending with the above date.

The period embraced covers the second year of the class of student officers which completed its two years of instruction on yesterday. This class consisted of the following officers:

First Lieut. John McClellan, Fifth Artillery.	Second Lieut. Charles G. Treat, Fifth Artillery.
First Lieut. Oliver E. Wood, Fifth Artillery.	Second Lieut. Samuel Rodman, jr., First Artillery.
First Lieut. Henry W. Hubbell, First Artillery.	Second Lieut. William F. Hancock, Fifth Artillery.
First Lieut. Leverett H. Walker, Fourth Artillery.	Second Lieut. Beverly W. Dunn, Third Artillery.
First Lieut. Charles W. Hobbs, Third Artillery.	Second Lieut. Ira A. Haynes, Third Artillery.
First Lieut. Thomas C. Patterson, First Artillery.	Second Lieut. Willoughby Walke, Second Artillery.
First Lieut. Henry H. Ludlow, Third Artillery.	Second Lieut. Stephen M. Foote, Fourth Artillery.
First Lieut. Erasmus M. Weaver, jr., Second Artillery.	Second Lieut. Harry L. Hawthorne, Second Artillery.
First Lieut. Edward E. Gayle, Second Artillery.	Second Lieut. John C. W. Brooks, Fourth Artillery.
First Lieut. Charles J. Bailey, First Artillery.	

ARTILLERY.

General subject.—At the date of my last annual report, viz, September 1, 1887, the class was recommencing studies in the course of artillery, which had been interrupted by the summer intermission. This uncompleted portion of the course consisted, in general terms, of the following:

The theory of gun construction; deviation of projectiles; principles of rifling cannon; the conclusion of the theory and practice of gunnery (incomplete at date of last report); penetration of projectiles; manufacture of small-arms and ammunition (foreign as well as American); sporting and magazine guns; organization and use of artillery; inspection of manufactories of war material; concluding with the reading of essays on subjects assigned to student officers in the early part of the course.

These essays embraced the following subjects:

- (1) The development of gun-carriages from earlier times to present, especially in the United States.
- (2) The development of field, siege, and sea-coast cannon.
- (3) The organization and use of artillery in the war of the rebellion.
- (4) Descriptive comparison of the organization of the artillery in European armies.
- (5) Garrison artillery: Its duties during war, and the training it should have during peace.
- (6) The development of the science of ballistics and gunnery, and the relation it bears to cannon manufacture.

- (7) The problem of national armament.
- (8) The relation of chemistry and metallurgy to the art of war.
- (9) The duties of field artillery during war, and the training it should receive during peace.
- (10) Explosives: Their use in warfare and the effect of their introduction.
- (11) Military torpedoes: Their relation to attack and defense.
- (12) History of artillery in the United States and a scheme for its re-organization.
- (13) Description of and comparison between modern systems of artillery.
- (14) The modern development of fire-arms.
- (15) Artillery administration and supply.
- (16) Modern gun construction.
- (17) Modern cannon and guns: Their relation to and their effect upon the organization and operation of armies.
- (18) The development of naval artillery, especially in the United States.
- (19) Armor afloat and ashore.

Of these essays, those by Lieutenants Patterson (No. 6), Weaver (No. 8), Dunn (No. 14), and Foote (No. 17), respectively, were selected by the staff for honorable mention. That by Lieutenant Dunn was published.

This course ended with the examination therein on the 21st of October, 1887, at which time all the officers passed except Second Lieut. J. C. W. Brooks, Fourth Artillery, who, being notified of this fact, named the 14th of August, 1888, as a time when he would be prepared for re-examination. His re-examination proved satisfactory.

This portion of the artillery course was under Capt. J. B. Campbell, Fourth Artillery, until January 6, 1888, when he was relieved and Capt. S. M. Mills, Fifth Artillery, assigned to it in addition to his other duties. Captain Mills continued in charge until the 20th of June, 1888, when Capt. J. P. Story, Fourth Artillery, was assigned to it. During the short time in which Captain Mills was in charge, he, with his usual energy, did much to place his department in order, and turned it over to his successor in greatly improved condition.

Ballistics.—The subject of interior ballistics has been elided from the general branch of artillery just mentioned, and united to exterior ballistics, thus bringing under one head these kindred subjects. Captain Ingalls, First Artillery, is now collating text-matter so as to have it available for the next class. Heretofore this subject, the body and soul of artillery, has been very much in the air, and it was very fortunate that Captain Ingalls was allowed to remain on duty here until he completes this and other work.

The following is a syllabus of the course of instruction in interior ballistics as projected:

Gunpowder.—Chemical principles involved in its manufacture. Complex nature of the explosion of gunpowder. Investigation of the products. Properties of gases. Time of explosion. Heat developed in the explosion. Calculation of the temperature of the flame of powder. Expansive energy of the gaseous products. Noble and Abel: Researches on the pressure of powder gases in a vessel whose capacity remains constant. Curve of pressure.

General equation of motion of a projectile in a bore.—Approximate integration of the equation of motion. Numerical determination of the constants involved. Practical formulæ for velocities and pressures in guns. Application and numerical verifications. Mathematical characteristics of powder. Best form of chamber. Maximum pressure.

Mathematical theories in gun construction.—Initial stresses. Transverse and longitudinal strains on firing. Distribution of strength to meet these strains. Comparison of transverse and longitudinal stresses. Factor of safety.

Rifling.—Object of rifling. Centering of projectiles. Uniform and increasing twist. Method of ascertaining the curves, and of calculating the tangent and twist at any point in the groove. Velocity of rotation to insure stability. Work required to produce rotation.

Inspection of cannon.—To ascertain the condition of the post ordnance, and to give practice to the student officers in this necessary branch, all cannon used for firing were systematically inspected under the direction of Capt. S. M. Mills, Fifth Artillery, instructor. This inspection occupied from May 18 to June 6, 1888.

Artillery exercises.—This important branch has been under Captain Mills, who, in his report, says:

Mechanical manœuvres in Classes B and C (programme of instruction), was resumed September 14, 1887, and continued daily, Saturdays and Sundays excepted, in the manner described fully and in detail in my previous reports, all the officers of the class attending.

After September 19, and until December 1, only such officers as were not required at ballistic firing were under my instruction. After December 1 mechanical manœuvres were discontinued on account of the weather and the soft condition of the ground, until the 1st of April following.

December 1. Began, under orders of the commanding officer, laying two 15-inch timber platforms on the beach, for the 8-inch converted rifles, for the following summer practice. Officers were detailed in succession to witness the labor as it progressed; continue this labor, and of mounting the 8-inch rifles, upon such days as the weather permitted, until the middle of February.

April 1. Resumed instruction in mechanical manœuvres, Class C, including raising the 15-inch gun to the ramparts and inspection of cannon. Upon the subject of the inspection of cannon, a special detailed report has already been submitted. At a later date a special detailed report upon exercise 15, Class C (raising and lowering 15-inch gun to the rampart and parade), will be made, with a view of suggesting some modifications of the method employed, and which is nowhere described in detail. In the above exercises and labor the officers were detailed in succession to execute the manœuvres, except in raising, etc., the 15-inch gun, which, as required by regulations, was done by the instructor.

May. When not engaged in infantry target practice, instruction continued in inspection of cannon, the officers being detailed as before to perform the work under my supervision. Completed this work.

June. Completed mechanical manœuvres, Class C, and dismounted 15-inch gun near water-battery and exchanged the carriages, replacing the old for the new pattern. Special report has been submitted on this subject.

July. Artillery firing practice, Class D, commenced July 10 and continued daily, as before, with a few days' interruption in August, due to the command attending the funeral obsequies of General Sheridan, until August 13.

The detailed method and system employed was the same as last year, which has been fully described in my previous reports.

One great advantage gained this year was in having a cable connection between Station C (Riprap), with firing point, which enabled the angles to be transmitted from this station with great rapidity and facility. The angles from Station A were transmitted as heretofore by telegraph (land line). The facilities were such that from twenty-five to thirty shots could be fired, recorded, and plotted in an afternoon without difficulty.

Practicing this year was confined to the 15-inch smooth-bore and the 8-inch converted rifles and the 3.2-inch steel breech-loader, the sights for the latter having only been received a few days before the close of the practice.

There is nothing of special importance to report of the practice with the 8-inch rifles and 15-inch guns in addition to that contained in previous reports and to be found in the daily records of firing, further than the unsatisfactory record of the time-fuzes, rarely one of which was found, whether of 1862-'64 or 1883 date of fabrication, that would explode as cut. During my absence, a few days at the beginning of the practice, I was informed that several of the "Eureka" shells exploded in the 8-inch rifles when using both time and percussion fuzes. The impression was that it was caused by weakness of the base of the shell. I fired them during the remainder of the practice with both time and percussion fuzes, and had but one instance of premature explosion, and this was with a time-fuze, the shell exploding in the gun almost simultaneously with the discharge. I am of the opinion that premature explo-

sion is more likely to be traced to the fuze, or some other cause rather than to an inherent weakness of the shell.

I have to mention, in addition to the uncertainty of the fuzes, as exceptional with this shell, that the sabot was so loose that it could be turned with the hand. One gun was fired with the tompon inadvertently in the muzzle.

The carriages of the 8-inch rifles worked admirably. In two of the carriages of the 15-inch battery the heads of the cylinder leaked badly. I have made special report upon this.

Practice was had for the first time with the two 3.2-inch steel breech-loaders, the position of the guns for firing being accurately located 20 yards in front of the 8-inch rifle battery. The target was at a distance of from 2,300 to 3,365 yards. The peep-sight provided with this gun can not be used with advantage at long ranges. The practice was excellent, the target, which was a small object at these distances, being hit many times; all the shots grouped around it.

The gun was fired without platform. The recoil in the sand was never more than 5 feet with brakes on. The daily record shows the details.

The summer's (1888) artillery firing practice (exclusive of the Washington and Fort McHenry batteries) involved the use of ammunition as follows:

Weight of powder charges for the 8 inch rifles, 4,850; for the 15-inch smooth-bore guns, 11,510; and the 3.2-inch field gun, 120 pounds; a total of 16,480 pounds of powder. The weight of projectiles was, for the 8-inch rifles, 7,200 pounds; for shell, 18,600; for 15 inch smooth-bore, shot, 18,100, shell, 26,960; for the 3.2-inch field guns, 1,040 pounds, shell only; a total of projectiles of 71,900 pounds. Total powder and projectiles, 88,380 pounds.

Pursuant to orders from headquarters Division of the Atlantic, 1888, five batteries of the Third Artillery from Washington Barracks and three from Fort McHenry were sent to this post in detachments of two batteries each, for the purpose of using the facilities here for their annual heavy artillery target practice. This practice took place between the 15th of July and the 22d of August, 1888. The firing, observations, etc., were systematically conducted according to the Artillery School methods, and appeared to be successful as a means of instruction. The total number of shots fired by these batteries was:

8-inch muzzle-loading rifle (converted)	solid shot..	70
8-inch muzzle-loading rifle (converted)	shell..	29
10-inch sea-coast mortar	do.....	35

The weight of powder charges for the 8-inch rifles, 3,465 pounds; for sea-coast mortars, 85½ pounds; total of 3,550½ pounds of powder. The weight of shot for the 8-inch rifles was 12,670 pounds, and of shell for the same, 4,614 pounds; for mortars, 3,080 pounds; a total for projectiles of 20,454 pounds.

SUBMARINE MINING.

A successful attempt was made this year to introduce a limited course in this branch, so very important to the artillery officer. The following extract from the report of Capt. J. M. Ingalls, First Artillery, instructor, explains what was accomplished in this direction:

In the spring of last year the commanding officer at Willets Point, by request of the commanding officer of the Artillery School and under orders from the Chief of Engineers, sent here for instruction purposes a few service torpedoes with single, triple, and grand-union boxes, cut-off boxes, etc., and a limited quantity of single and multiple conductor-cable. Also a complete set of apparatus for single electric testing.

As no instruction in submarine mining had ever been given here, it was thought best, before attempting to fit up a mining casemate for instruction, to avail ourselves, as far as practicable, of the large experience of the Torpedo School of Instruction at

Willetts Point. Accordingly, at the request of the commanding officer, United States Artillery School, I received orders to repair to Willetts Point. In compliance with this order I reported, August 1, 1887, to Maj. W. R. King, United States Engineers, commanding there, who, during the five or six weeks I remained, gave me every facility in his power for obtaining information on all subjects connected with submarine mining as taught there.

On my return to Fort Monroe, in September, I was directed to fit up the casemate at the east end of the water battery, formerly used as a chronograph room, as a mining casemate for instruction. In doing this I was ably assisted by Second Lieut. Samuel Rodman, jr., First Artillery, who had already taken the course of instruction given to artillery officers at Willetts Point; and this, in addition to his mechanical skill and ingenuity, rendered his service of great value. With the limited means at our disposal it was not until March that the casemate and apparatus were ready for use.

The casemate, as far as it goes, is all that could be desired. It is provided with a firing battery of 100 Leclanché cells of 10 boxes, after the Willetts Point pattern, and a single battery of 40 gravity cells, or as many of them as may be necessary; most improved instruments for making electrical measurements and tests, and the connections neatly and conveniently arranged. What it lacks are the beautiful instruments devised by General Abbot, and which constitute the soul of the whole system. Lieutenant Rodman undertook to supply their place with apparatus of his own devising, which, with proper instruction, would give the student a clear idea of the method of exploding mines and making the necessary electrical tests, which undertaking he successfully and most ingeniously carried out.

The following project of instruction was followed as far as the limited time would allow, chiefly by lectures and practical work. It is to be hoped that more time can be spared for this most important subject in the future.

PART I.—(1) Definition of such technical terms and presentation of such general principles of electricity as are applicable to submarine mining. Under this head are included:

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| (a) Physical effects of electricity. | (d) Coupling of cells. |
| (b) Generation of electricity. | (e) Classification and description of cells. |
| (c) Laws of currents. | \|\| (f) Battery manipulation. |

(2) Description of such instruments (and their uses) as are employed in electrical measurements. Under this head are included:

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| (a) Theory of the galvanometer. | (g) Measurement of the resistance of a conductor. |
| (b) Theory of the Wheatstone Bridge. | \|\| (h) Measurement of internal resistance of a battery (Mance's method). |
| (c) Service detector. | \|\| (i) Laffin & Rand machine. |
| (d) Bradley galvanometer. | \|\| (j) Wheatstone dial telegraph. |
| (e) Sieman's Universal galvanometer. | |
| (f) Bridge rheostat. | |

PART II.—(1) General discussion of submarine mining, giving principles governing in the mode of warfare, kind of mines, method of anchorage, general disposition of the mine, etc.

(2) Special description of mines used in United States service, together with appliances employed, the explosives, fuze, cable, junction-boxes, cut-off boxes, etc.

(3) Description of mining casemate, apparatus made use of, and general arrangement of the same.

MILITARY ART AND SCIENCE.

The course of artillery studies was followed by these in the department of military art and science then under charge of Capt. J. H. Calef, Second Artillery.

Captain Calef's battery, having been on duty at this post from the organization of the school, 1867, was, on December, 6, 1887, exchanged with another battery of the same regiment by orders from army headquarters. Captain Calef being at this time in the middle of his course it was thought advisable not to transmit it to new hands until its completion. I accordingly made application and secured his retention until that time. He was then, March 20, 1888, relieved, and his course placed under the charge of Maj. R. T. Frank, First Artillery, who still continues to have it.

Captain Calef in his report says:

The course commenced on Monday, October 17, 1887, and finished with the examination, which took place March 15, 1888, covering a period of five months, less the holidays.

The following is a summary of the instruction:

From October 17 to December 7, 1887, Hamley's "Operations of War," 472 pages; December 7 to January 13, 1888, Jomini's "Summary of the Art of War," 281 pages, with some omissions; January 15 to February 1, the instructor's work on "Military Policy and Institutions and Ancient and Modern Standing Armies," 227 pages; February 1 to February 21, Homes's "Précis of Modern Tactics," from page 64, 192 pages. During this part of the course I gave a lecture of "outpost duty," with general remarks on the minor operations of war.

Then came a lecture on "military geography," from which the class took notes, and each of the officers was given one of the United States or a neighboring State on which to write the military geography. Encyclopedias, physical geographies, the last census reports, and the reports of the States adjutants-general were consulted in the preparation of these papers. These were afterwards read by the officers compiling them, and then turned in with the essays to form part of the records of the school.

The subjects for military geography were the following: Canada, Cuba, and the States of Maine, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Virginia, North Carolina, Georgia, Texas, Ohio, Illinois, Kentucky, Tennessee, Michigan, Wisconsin, and California. Then followed a lecture on some of the strategical and tactical principles illustrated by the civil war of 1861-'65.

On Wednesday, March 7, 1888, the reading of the essays was begun. The subjects had been given out in February, 1887, and embraced the following:

- (1) The necessity of a bureau of military intelligence in the Army, and what professional information should be obtained by an officer traveling in Europe.
- (2) Our successive military frontiers as developed by the settlement of the country.
- (3) Logistics and the duties of the general staff.
- (4) Organization, instruction, and care of an army corps in camp and on the march.
- (5) Strategic value of the line of the Hudson River and Lake Champlain.
- (6) Staff schools.
- (7) Organization of the artillery personnel best suited to the United States service.
- (8) The bearing of tactics on the training of the soldier.
- (9) Reconnaissance, and the value of good maps in military operations.
- (10) Assuming the present defenseless condition of the Pacific coast, what policy and action should obtain in the case of a sudden war with Great Britain.
- (11) The past and present of militia with suggestions for its improvement.
- (12) History of submarine mining and its application to offensive and defensive warfare.
- (13) Historical sketch of the United States cavalry and the possibilities of the arm in any future war.
- (14) In the case of the sudden declaration of war against the United States what steps would be necessary for the calling and training the citizen soldiery for active service.
- (15) How the strategic and military geography of the theater of war influenced the grand operations of our late civil war.
- (16) Influence of climate and physical features of the theater of war upon military operations.
- (17) Our railroad systems, and how it may be utilized in time of war.
- (18) A Central American interoceanic canal, and its strategical importance to the United States.
- (19) Co-operation of the Army and Navy in time of war.

Most of these were fine papers, and some were exceedingly so; among the latter may be mentioned those of Lieutenants Hobbs (No. 5), Weaver (No. 8), Bailey (No. 10), Dunn (No. 14), Walke (No. 16), and Foote (No. 17).

After this, March 15, 1888, came the examination, which was in writing. Twelve questions were given out and all answered in the time allotted.

A new feature of the course was the introduction of Homes's "Précis of Modern Tactics," in addition to the text-books already established, and which embraced much that was formerly taught by lectures. I would recommend that Clery's "Minor Tactics" and Shaw's "Elements of Modern Tactics" be issued to the student-officers as "books of reference," while studying this course.

It was desired to include in the course Lieutenant Wissler's "Practical Problems in Minor Tactics and Strategy," but maps properly prepared were wanting and the idea had to be abandoned. Such practical problems are of inestimable value as the only manner in which the theories taught in the books can be applied in our service, unless the officers are taken into the field, make a rapid reconnaissance of the surround-

ing country and then and there work out certain problems prepared from their own surveys, the practice or training in which would be of still greater value to them.

My method has been to bring to the attention of the student officers illustrations of principles beside those contained in the text, especially such as were connected with or developed by our own military history, and to read to them at times extracts from leading military works.

In relinquishing my duties as instructor in this department, covering a period of thirteen years, I desire to bear witness to the interest uniformly displayed by the student-officers in this course (which appeals strongly to every soldiery instinct) and to express the belief that of the many who have taken in the principles, not a few may be found who, in the hour of the country's need, will be able to apply them with honor to themselves and credit to the school.

DEPARTMENT OF LAW.

Instruction in this department followed the course just mentioned. This department is under Capt. W. A. Kobbé, Third Artillery, who reports as follows:

The time assigned for instruction in this course, March 16 to June 19 (both inclusive), 1888, about four weeks in all, is liberal and something in excess of the time allotted to the subject for former classes, but unavoidably interrupted occasionally by military and other exercises. Actual number of recitations:

Constitutional law	32
International law	20
Military law	10
Total	62

The text-books used were Cooley's Constitutional Law, Glass's Marine International Law, and Winthrop's Military Law, supplemented, however, by many other standard works, available in the small but select library of the school, and also by pamphlets, monographs, letters, newspaper articles, reviews, etc., relating to the subject under discussion. The following are among the books put in circulation and read in succession by each member of the class:

Wilson's Congressional Government.	Davis's Modern States Constitution.
Maine's United States Constitution.	Bancroft: A Plea for the Constitution.
The Federalist.	Lawrence: The Primacy of Great Powers
Secret Proceedings of Constitutional Convention.	Lawrence: The Evolution of Peace.

The instructor also read original papers on the following subjects:

The Origin of American Law.	Is there an international law?
The Common Law.	International Canals: The Clayton-Bulwer treaty.
The Bill of Rights: Alexander Hamilton in the Convention.	German "courts of honor."

And the following subjects among others were discussed at length, though informally:

Citizenship and who may vote.	The Electoral Count.
The Executive and martial law.	Equity.
The Cabinet (American and English).	

The following subjects were given out, one for each member of the class, about a year in advance, with instructions to be prepared to discuss them from notes or otherwise when called on during the course:

- (1) Modern State constitution, Lieutenant Hobbs.
- (2) The interstate-commerce act, Lieutenant Ludlow.
- (3) Ceded districts and military reservations, Lieutenant Gayle.
- (4) The Virginia coupon cases, Lieutenant Walke.
- (5) English and American systems of Government compared, Lieutenant Weaver.
- (6) The use of the Army under Article IV, Constitution of the United States, Lieutenant Bailey.
- (7) The English, German, Swiss, and French constitutions compared, Lieutenant McClellan.
- (8) The Texas boundary question, Lieutenant Haynes.
- (9) The compromise of 1850, Lieutenant Brooks.
- (10) The northeast boundary question, Lieutenant Walker.

- (11) The Oregon boundary question, Lieutenant Foote.
- (12) The Canadian patriot war, Lieutenant Rodman.
- (13) The complications with Spain and Jackson's action in Florida, Lieutenant Patterson.
- (14) The rights of citizens of the United States in foreign parts; extradition; the Cutting case, Lieutenant Hubbell.
- (15) The fisheries question, Lieutenant Hawthorne.
- (16) Reprisals of the United States against France; embargo of 1807, Lieutenant Hancock.
- (17) The Alabama claims, Lieutenant Wood.
- (18) The Monroe doctrine, Lieutenant Treat.
- (19) International efforts to mitigate war, Lieutenant Dunn.

Of these, Nos. 2, 4, 11, 17, and 19 displayed original and forcible treatment of the subject and would have permanent value and interest if printed and circulated by the Artillery School. Most of the other papers displayed much care and study in their preparation and were exceedingly interesting. Nos. 8 to 13, inclusive, were suggested by the commandant of the school, who has continued to think well of the course and to give it the benefit of advice and encouragement whenever possible.

The methods of instruction, sufficiently indicated in the foregoing, are believed to be the best under the circumstances. Recitations daily from elementary text-books, while they have a certain well-defined value, can not be of interest, nor fix the attention of a class of officers, many of them men of scientific training, nearly all of them men of more than common intelligence, and well read in a wide range of subjects, professional and otherwise. While the ground covered has been wide, the subjects on the whole have been those with which men of education should be everywhere familiar. They were, moreover, always discussed from a professional stand-point, and with due reference to questions which an officer of artillery may be at any time called upon to decide for himself both in time of peace and during war. At the same time recitations from elementary text-books form a nucleus and guide for the course, and have been to this extent retained; they are otherwise far from superfluous. Since I have had charge of the course one officer of the class gravely mentioned the Chief-Justice of the United States as a member of the Cabinet, and another stated in a written paper that naturalization laws were passed by the States; both of these officers were graduates of the Military Academy of high standing. Similar misstatements, showing much ignorance on the subject of our own and foreign governmental methods, are not uncommon, and have led me to reverse my opinion once expressed, in common with that of others, including the Board of Visitors, that the law course be abolished.

The examination in the foregoing took place on June 20, 1888, and was satisfactory for each and all the officers.

MISCELLANEOUS.

Small arms target practice was conducted during the months of May and June, under the rules prescribed from the headquarters of the Army, First Lieut. H. B. Osgood, Third Artillery, being designated as range-officer, and Maj. A. C. M. Pennington, Fourth Artillery, as superintendent.

Lieutenant Osgood in his report says:

The range.—Unchanged since last report. New butts were built in March last at the 500, 600, and 1,000 yards ranges, and the butts at the 100, 200, and 300 yards ranges repaired. Quite a lot of grading and filling was done. The sum (\$229.23) assigned to this post for repairs of ranges was all expended in lumber and nails. By the use of the best of the lumber out of the old butts enough was had to put down platforms for the markers at the 500, 600, and 1,000 yards ranges. The labor expended represents in day's work of one man twenty-two carpenter and seventy-eight common labor. In grading and filling twenty-one days' work for one mule was used. The work was all done by the enlisted men and public animals.

The firing season was from May 1 to June 30, 1888, equally divided among four batteries, and to the other battery at the post (G, First Artillery) no assignment of time was made, as it was under orders for California. The battery taking its place (F) had completed its practice before arriving here. One sergeant and one private were employed on the range during the practice season.

The "Bench Reloading Tools" worked very satisfactorily, and are in good order. The targets were of the Laidley vertical-axis pattern.

The number of shots fired by each man averaged 403. The highest average fired by any battery was 488, the lowest 331. The average number fired in skirmishing was 88. The total ammunition was 83,380 rounds. There were no accidents to individuals. The arm used was the Springfield rifle-musket, caliber .45. The number of muskets fired was two hundred and twenty-one, of which seventeen were injured during the season.

Aside from this practice, owing to other demands, the time being so fully occupied with artillery work, little attention could be given to infantry, beyond the guard-mountings, parades, reviews, and the drilling of recruits.

Telegraphy.—The student officers of the class having had their instruction in this branch during the preceding year, instruction was confined to the enlisted men, principally non-commissioned officers. Lieut. B. W. Dunn, Third Artillery, himself a skilled operator, has continued in control of this branch. In his report he says:

The course was an optional one, although it was thought more desirable that non-commissioned officers should receive this instruction, yet privates were readily admitted to the class.

The "American Morse Telegraph Code" was used.

In order to become a successful operator, it is essential that one should possess a ready and quick intellect, a fair common school education, a natural aptitude for rapid physical movement, and the ability to write legibly and rapidly. The number of men possessing these qualities in the average battery is very small, and among the fortunate ones there are still many who lack either the application or ambition necessary to success. I was compelled to reject, after trial, quite a number of those applying for instruction.

If a man possesses these qualities it is a simple matter to make of him a good operator. As there are numerous well-written text-books on the subject of practical telegraphic instruction, it is not deemed necessary to describe, in detail, the method employed in this case.

The salient features of the method of instruction were as follows: A scholar was first required to memorize the alphabet, and, when this was thoroughly done, he was given sufficient instruction in the theory and practice of telegraph instruments to enable him to place one in position, attach the wires correctly, and readily effect the adjustment. Then began the work of associating in the mind, with the memorized symbols, the proper sound. This work was slow, tedious, and progressive. From one letter he passed to another, and, finally, from letters to words.

After these preliminary stages were over the daily practice consisted of sending messages which each member of the class was required to receive by ear and write down. At the conclusion of each message some one was called upon to read it, and the others, following their copies, were required to detect and note all errors. Much advantage was derived from the construction of a separate post-line for the use of the enlisted men. By this means the different battery squad-rooms, the hospital, the guard-house, and the sergeant-major's office were all placed in telegraphic connection, and thus the double influence of novelty and convenience was utilized to promote the individual practice and application.

With this report is submitted a list of thirteen men rendered capable by this instruction of taking charge of a telegraphic station for military purposes.

I will venture to suggest that throughout the Army, and especially in the artillery, telegraphy should share in the attention bestowed upon signaling. At every post it could be taught with less expense than signaling, and for the artillery, at least, it is of vastly more importance.

Signaling.—Instruction in this branch has likewise been confined to the enlisted men, and has continued under First Lieut. C. W. Hobbs, Third Artillery, who in his report says:

I have the honor to report that during the year beginning September 1, 1887, instruction in military signaling has been continued during the months of December, January, February, March, and April. Twenty-five non-commissioned officers have passed through the course of instruction and have attained a satisfactory degree of proficiency in wand, flag, and torch practice. All non-commissioned officers available for detail have been under instruction in this important branch of military duty, and it is believed that all are competent for detail on military signal duty at this post.

Non-commissioned officers' school.—This school has continued under charge of Second Lieut. Adelbert Cronkhite, Fourth Artillery. It opened January 2, 1888, and continued till May 1, 1888, with attendance and instruction as prescribed in General Order No. 52, headquarters U. S. Artillery School, 1887. The class was divided into two sections (sergeants and corporals), and any time in excess of that required for recitations proper was taken to make up back lessons.

During the previous two years the non-commissioned officers had passed systematically through the course of infantry and artillery tactics, and were prepared to advance to ordnance and gunnery.

There being no modern text-book suitable for the purpose, Lieutenant Cronkhite set himself diligently to prepare one, which he did most successfully, producing a work which, when completed, will fill a much felt hiatus in means of instructing enlisted men of artillery.

This book, and consequently the course, included chapters on explosives, projectiles, artillery, artillery carriages, and estimation of distances; and will be continued by chapters on sights, employment of artillery, submarine mining, transportation, care and preservation of artillery and small-arms.

The text-book is arranged in the form of questions and answers, being modeled after and intended to convey such information as was given in the "Hand-book of Artillery," and the instruction was always supplemented by practical examples when possible. The attention and preparation and discipline were generally very good.

BASE-LINE MEASUREMENTS.

A very important work performed chiefly by student-officers was the measurement of base lines for use in the artillery firing and for other purposes. This work was placed under the charge of Capt. James M. Ingalls, First Artillery, who reports as follows:

I have the honor to make the following report of the measurement of two new base lines of the Fort Monroe reservation, in compliance with the following order from the commanding officer of the Artillery School:

I. Two new base lines will be measured at this post under direction of Capt. J. M. Ingalls, First Artillery, assisted by Capt. J. P. Story, Fourth Artillery, Lieut. E. M. Weaver, Second Artillery, B. W. Dunn, Third Artillery, and A. Cronkhite, Fourth Artillery.

The base-measuring apparatus recently received from the U. S. Coast and Geodetic Survey will be used for these measurements.

A full report, accompanied by sketches of the work, will be made by Captain Ingalls. The measuring bars were two 4-meter bars (numbered 9 and 10), loaned by the Superintendent of the U. S. Coast and Geodetic Survey. The length of the bars and co-efficients of expansion were, on the authority of Assistant B. A. Colonna, in charge of the Coast and Geodetic Survey office, as follows:

No. 9, at 66.1° Fah., = 4.0007634 meters.

No. 10, at 66.1° Fah., = 4.0007210 meters.

Co-efficient of expansion = 0.0000061.

As the lines were measured upon the beach in the vicinity of Fort Monroe, no clearing of obstructions was required. The lines were selected so as to avoid the tides, dunes, etc.; and also with reference to transferring their extremities, by triangulation to points upon the parapet of the fort and in its vicinity selected by the commanding officer for the artillery and engineering uses of the school. The scheme of triangulation adopted is shown in the accompanying sketch [omitted from this report]. The ends of the lines are each marked by cross-lines on copper disks, leaded into heavy blocks of granite sunk level with the surface of the ground.

The level and sector of each bar were carefully adjusted, before beginning the measurements, by means of the Gurley Y level, belonging to the Artillery School, in the usual manner, and repeated during the work.

The work of measuring the first base-line, G H, began May 15 and ended May 23, 1888, consuming about nine hours' work in placing one hundred and four bars. The resulting length of this line is 453.649 yards.

The party was organized as follows: Captain Ingalls, in charge; Captain Story and Lieutenant Foote made the contacts, gave the signals, etc.; Lieutenant Weaver observed the inclinations, temperature, and number of the bars, and kept the record; Lieutenant Cronkhite made the alignments; Lieutenant Dunn superintended the placing of the trestles.

For the details see the book of records accompanying this report; also the triangulation sketch made by Lieutenant Gayle [both omitted].

The second line, H I, was measured between May 29 and June 6, and back measured between June 7 and June 13. In this work Lieutenant Cronkhite was replaced by Lieutenant Bailey, and Lieutenant Foote by Lieutenant Haynes, the other officers remaining the same as before. The time consumed in the first measurement was sixteen hours, and the number of bars placed four hundred and forty. The back measurement required only thirteen hours, or a little more than two minutes to a bar. This is considered rapid work by the Coast and Geodetic Survey experts. The length of this line is 1,923.494 yards.

The details will be found in the record book kept by Lieutenant Weaver, who also made the original reductions. These I have carefully revised and found correct.

Triangulation.—The triangulation, proceeding from two base-lines, G H and H I, was begun July 5 and completed August 25. There were measured in all seventy-eight angles. The instrument used was the omnimeter (Elliot Brothers, London), belonging to the Artillery School; and the work was very skillfully performed by Capt. J. M. K. Davis, Lieutenants Dunn and Haynes. Lieutenant Dunn, in his report, says: "As a general thing, each angle was measured at least six times and by at least two persons. In a few cases all the measurements were made by one person. The care bestowed on each observation and the number of observations of each angle was so nearly equal throughout the series as to render unnecessary any adjustment for weights."

The laborious calculations required in reducing the observed angles by the use of equations of condition has been completed by Lieutenant Dunn in a most satisfactory manner. It is certain that the lengths of the following lines, as given, are all correct to within one-tenth of a yard, and most of them within one-fiftieth of a yard:

Line.	Yards.	Line.	Yards.	Line.	Yards.
H I.....	1,923.49	H C.....	1,943.76	A E.....	1,635.81
A H.....	1,922.30	G C.....	1,960.07	F E.....	348.50
A B.....	1,839.02	H G.....	453.65	J E.....	806.66
A C.....	3,707.27	D B.....	393.96	J K.....	163.80
B C.....	2,074.62	C E.....	2,232.58		

The lines thus determined have their termini permanently marked and will always be available for artillery purposes and for instruction on the engineering course.

Azimuth determination.—To Capt. J. M. K. Davis, First Artillery, assisted by Second Lieut. S. M. Foote, Fourth Artillery, was assigned the determination of the azimuth of the base-line G H. Captain Davis, in his report, says:

"On August 12 we first used the solar compass and, in addition, the transit with the solar attachment. On two nights the greatest eastern elongation of Polaris was taken. As a mean of the observations obtained the true meridian was found to make with the base-line G H an angle of $74^{\circ} 29' 47.5''$.

Most of the adjustments and calculations were made by Lieutenant Foote, to whom any credit which may attach to the work performed is due.

LIBRARY.

During the past year some valuable additions have been made by the procurement of books and pamphlets. The library now contains 6,418 volumes. Many volumes have been rebound in the Artillery School bindery. The whole is now in good condition, but still insecure by reason of being kept in a frame building. Long-continued efforts to secure from Congress an appropriation for a fire proof structure have thus far proved unsuccessful. This library is invaluable to the Artillery School, and I respectfully invite special attention to the importance of having a more secure building for its accommodation.

During the past year First Lieut. O. E. Wood, Fifth Artillery, has continued his labors in preparing a supplement to the analytical cata-

logue of the library. This he has completed up to July 1, and the manuscript is in the hands of the printer, well under way.

PUBLICATIONS, ETC.

This branch is under First Lieut. Louis V. Caziare, Second Artillery, adjutant and secretary of the staff of the school. The following work has been done since the date of my last annual report:

Printing office.

Title of book.	Author.	Purpose.	Size of edition.	No. of pages.	No. of impressions.
Annual report.....	Commanding officer ..	Distribution ..	1,000	34	10,000
Development of Small-Arms	Lieutenant Dunn.....	do	500	25	4,000
Atmospheric Refraction	do	do	500	10	1,500
Surveying Instruments	Captain Chester	do	400	112	12,000
Gunnery N. C. O.	Lieutenant Cronkhite ..	do	200	114	8,000
Ballistic Problems	Captain Ingalls	do	800	104	55,200
Library Catalogue	Lieutenant Wood	do	300	48	2,700
Standing Orders			200	28	1,000
Current work of school and post					107,870
Total					180,870

Bindery.

Title of book.	Author.	Size of edition.	Binding.
Annual Report.....	Commanding officer.....	1,000	Paper cover.
Development of Small-Arms.....	Lieutenant Dunn.....	500	Do.
Atmospheric Refraction	do	500	Do.
Standing Orders	do	200	Do.
Surveying Instruments	Captain Chester.....	400	Do.
General Orders		40	Permanent.
Books for the library, rebinding.....		553	Do.
Current work, boxes, pads, envelopes, etc		597	
Total		3,890	

Lithographic.

Plates for—	Number.
Ballistic Firing	400
Lieutenant Dunn's Development of Small-Arms	500
Atmospheric Refraction	1,000
Total	1,900

Unfinished work.

Captain Chester's Military Surveying (nearly finished).
 Captain Ingalls's Ballistic Problems.
 Lieutenant Cronkhite's Gunnery for Non-Commissioned Officers.
 Library Catalogue (nearly finished).

The facilities for printing, lithographing, and binding are as follows:
 One Universal half-medium press; one Gordon eighth-medium press;

one hand lithographic press; five lithographic stones; one Gem paper-cutter; one Sanborn's table shears; one Hoe standing press; one Thompson wire hand-stitching machine; one Sanborn's backing machine; a fair supply of type, stand and cabinets for the same; a good supply of paper, ink, lithographic and book-binder's material—about one year's supply.

GENERAL REMARKS.

Personnel.—The staff of the school remains the same as at the date of my last report, viz: Myself, commanding; Maj. Royal T. Frank, First Artillery; Maj. A. C. M. Pennington, Fourth Artillery; First Lieut. Louis V. Caziarc, Second Artillery, secretary.

Major Frank is superintendent of the departments of engineering, military art and science, and law, and Major Pennington of the department of artillery and practical military exercises, and in charge of photography.

Second Lieut. Adelbert Cronkhite, Fourth Artillery, was, on the 4th of July last, relieved from duty at this post, under the impression, no doubt, that he had been here on detached service for four years. He had been on such duty less than two years. His withdrawal at this time is, for many reasons, particularly disadvantageous.

During the year the following changes were made in the instruction batteries of the school:

Battery K, Second Artillery (Calef's), relieved December 7, 1887, by Battery I (Vose's) of the same regiment.

Battery I, Fourth Artillery (Campbell's), relieved April 4, 1888, by Battery II (Story's) of the same regiment, April 6, 1888.

Battery G, First Artillery (Ingalls's), relieved May 18, 1888, by Battery F (Davis's) of the same regiment.

Under special application Captain Ingalls has been retained on duty at the school for the completion of certain work, notably preparation of text-matter upon interior ballistics, and the arrangement of a course of instruction in submarine mining adapted to the wants of the school.

Second Lieut. W. Walke, Second Artillery, of the class just graduated, has been retained to take some of the duties left by the relieving of Lieutenant Cronkhite.

First Lieut. H. B. Osgood, Third Artillery, continues as range-officer, ordnance officer, and officer of police.

Capt. F. E. Nye, commissary of subsistence, continues as disbursing officer of the Artillery School appropriation, and in charge of the library.

All the members of the class (mentioned by name on page 120), having passed satisfactorily through the course, were awarded certificates by the staff.

As a whole this class compared favorably with preceding classes. What the members often lacked in soldierly, they made up sometimes in scholastic, qualities.

The feeble hold that the Government has upon its military officers to insure other than perfunctory service makes a thoroughly conscientious and efficient performance of duty only the more creditable to the officers rendering it. In this respect performance of Artillery School duties by student-officers stands upon the same footing as like performance of duties in the military service at large.

One of the great advantages of this school is that a comparatively large number of officers are brought together; work is set out for them

to do; the manner in which they individually perform it becomes known to all, and thus their characters are established, and they become known to the service accordingly.

The class just graduated did considerable work in addition to their duties as student-officers, the most important of which is as follows:

First Lieut. O. E. Wood, Fifth Artillery, in preparing supplementary catalogues to the Artillery School library; First Lieut. H. W. Hubbell, First Artillery, as instructor of non-commissioned officers; First Lieut. C. W. Hobbs, Third Artillery, instructor in signaling; First Lieut. T. C. Patterson, First Artillery, instructor of student-officers in chemistry; First Lieutenant Bailey, First Artillery, in base-line measurements; Second Lieut. Samuel Rodman, jr., First Artillery, in charge of electrical department, and in submarine mining; Second Lieut. B. W. Dunn, Third Artillery, instructor in telegraphy, in observations of atmospheric refractions, on base-line measurements, and reduction of the field work; Second Lieut. Ira A. Haynes, Third Artillery, and Second Lieut. S. M. Foote, Fourth Artillery, in base-line measurements.

The \$5,000 appropriated by Congress for the support of the school for the fiscal year ending on the 30th of June last was expended judiciously for the purpose prescribed.

A like appropriation every year will suffice for the current expenses of the school.

The armament for the purpose of instruction is the same as heretofore, with the exception of the addition of a couple of 3.2-inch breech-loading rifles.

The new class just arrived (September 1) consists of the following.

First Lieut. E. R. Hills, Fifth Artillery.	Second Lieut. G. T. Bartlett, Third Artillery.
First Lieut. Charles Humphreys, Third Artillery.	Second Lieut. J. T. Thompson, Second Artillery.
First Lieut. Henry C. Danes, Third Artillery.	Second Lieut. Louis Ostheim, Third Artillery.
First Lieut. M. Crawford, jr., Second Artillery.	Second Lieut. John Conklin, jr., Second Artillery.
First Lieut. J. H. Gifford, Second Artillery.	Second Lieut. E. B. Babbitt, Fifth Artillery.
First Lieut. W. B. Homer, Fifth Artillery.	Second Lieut. C. L. Corthell, Fourth Artillery.
First Lieut. F. S. Harlow, First Artillery.	Second Lieut. W. N. P. Darrow, Fourth Artillery.
First Lieut. W. S. Alexander, Fourth Artillery.	Second Lieut. T. B. Mott, First Artillery.
First Lieut. J. L. Chamberlain, First Artillery.	Second Lieut. G. W. S. Stevens, Fifth Artillery.
First Lieut. C. L. Phillips, Fourth Artillery.	
Second Lieut. M. F. Harmon, First Artillery.	

On the 10th instant they will enter upon their course of instruction, the first thing being engineering and practical exercises in artillery.

Very respectfully, your obedient servant,

JNO. C. TIDBALL,

Colonel First Artillery, Commanding.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

REPORT OF COLONEL McCOOK.

U. S. INFANTRY AND CAVALRY SCHOOL,
Fort Leavenworth, Kans., September 12, 1888.

GENERAL: I have the honor to submit for the information of the Major-General commanding the Army the annual report for the Infantry and Cavalry School, which includes the first year's course of the present class, commencing September 15, 1887, and ending May 31, 1888.

This being the first year's experience in the new curriculum, also the first year's trial under the new regulations for the school, it affords me pleasure to report good progress in the former, with success in administration under the latter.

The commandant of the school, as well as some of the instructors for duty here, have given their best thoughts in formulating a course of study, the theoretical and practical knowledge of which could not fail to be of service to the progressive military student. In the performance of this duty many obstacles presented themselves, as the subjects sent to the school for instruction are selected from the graduates of the Military Academy, from the appointments from civil life, and the promotions from the ranks; hence it was impossible to establish a purely post-graduate course.

The one most needed should be adapted to the capacity and comprehension of all who would study and apply themselves to it, at the same time to be sufficiently advanced to require application and study from any of the subalterns of infantry and cavalry who may from time to time be detailed to the school.

The course for the last year was as follows:

September 1 to September 15: Practical instruction in the ceremonies (guard mounting, parades, reviews, and inspections), each arm separately and then combined.

September 15 to October 29: Theoretical course in infantry tactics (school of the soldier, company, battalion, skirmishers).

Student officers detailed to companies for practical instruction in the various drills.

September 15 to October 29: Theoretical instruction in cavalry tactics (school of the trooper, company, and battalion, and skirmishers); practical instruction at drills.

September 15 to November 21: Theoretical instruction in minor tactics; orientation; functions of the three arms; advanced-guards; reconnoitering; attack and defense of infantry; attack and defense of cavalry; attack and defense of the three arms; rear-guards.

In this course the following problems were solved in the section-rooms on a large scale (6 inches to 1 mile) map containing topographical features in colors; time occupied in the movement of troops; space occupied by troops on the march; space and time required for marches and formations; advanced guard opposing an advanced guard; posting of outposts; infantry strong patrol against infantry advance guard; small cavalry patrol and point of infantry advanced guard; infantry combat, engagement of two infantry patrols; cavalry combat, squadron against troop; the three arms combined, engagement of two forces; rear-guard holding advanced guard.

Mondays, during the autumn months, were devoted to practical field exercises, applying the principles of minor tactics, in the country and in and about Fort Leavenworth, to a distance of from 10 to 15 miles.

In these exercises the student officers and the companies of the garrison took part; the enemy was usually represented by a force of a greater or less strength. Student officers with each column were required to make rapid reconnaissance sketches (with colored crayons) of the country passed over, with written reports giving required information, and the sketches and reports were required to be submitted a few hours after the end of each exercise. The exercises were made to conform as far as possible with a supposed real situation in war, and were under the direction of the instructors of infantry and cavalry.

November 22, 25, 28, 29, and 30: Oral examinations in infantry tactics, cavalry tactics, and minor tactics. See Appendix A.*

First Lieut. F. D. Sharp, Twentieth Infantry, deficient in minor tactics. See Appendix A.*

November 1 to February 24: Practical and theoretical instruction in military topography. For instruction in topography the student-officers were divided into sections, and those who developed a lack of knowledge of mathematics sufficient to pursue the course in topography were reported from time to time by the instructor and formed in a section in mathematics, and afterwards resumed their course in topography.

From December 1 until December 21, and from January 4 to February 2, the course in military law.

February 6, 7, and 8: Oral examination in military law.

First Lieut. F. D. Sharp, Twentieth Infantry, deficient. See Appendix B.*

February 12 to April 5: Theoretical and practical instruction in hipology.

February 20 to May 31: Course in modern tactics, consisting of recitations, lectures, and problems. The problems were solved on a large-scale map, representing a varied country (topographical features, contours, and artificial features in conventional colors). The problems consisted of a general situation, giving the general zone of operations, the supposed position of the enemy and of friendly troops, and the general plan. Special ideas were then worked out by student-officers, each with a designated force, a special plan, and keeping in view the proper relation between the forces engaged and the terrain; all orders received and issued being given in writing, and each operation of a march or combat being described in detail. See Appendix D.*

February 27 to May 31: Theoretical and practical instruction in military surveying.

April 24 to May 24: Completion of the course in infantry tactics (school of the brigade, marches, and camps).

April 24 to May 4: Completion of the course in cavalry tactics (evolutions of the regiment and brigade, marches, and camps).

May 5 to June 1: Theoretical instruction in bits, biting, and saddling.

June 1: Written examination in military surveying and topography. (Examination questions.) See Appendix E, 1.*

June 2: Oral examination in infantry tactics.

June 3: Written examination in cavalry tactics. See Appendix E, 2-4.*

June 4, 5, and 6: Written examination in modern tactics. See staff proceedings, F, Appendix E, 3.*

The following-named officers were declared deficient at the examination in June in the following studies.

First Lieut. W. O. Cory, Fifteenth Infantry, military topography and

* Omitted.

surveying; Second Lieut. R. R. Stevens, Twenty-third Infantry, military topography and surveying; Second Lieut. S. R. H. Thompson, Seventh Cavalry, military topography and military surveying; Second Lieut. S. M. Hackney, Sixteenth Infantry, military surveying; Second Lieut. J. H. Duval, Eighteenth Infantry, military surveying; First Lieut. W. S. Scott, Twenty-fifth Infantry, military surveying and modern tactics; Second Lieut. T. H. Wilson, Second Infantry, infantry tactics, surveying, and modern tactics.

No reasonable excuse for their deficiency can be offered by the student-officers who failed to pass their June examination. In most instances, devotion to social pleasures, neglect, idleness, and a lack of proper appreciation of the seriousness and dignity of the military profession are the causes for this want of success.

There should be a penalty attached to such conduct; for officers who have not taken advantage of the opportunities presented to them for instruction and improvement at the school will, when returned to their regiments, evince the same neglect and indifference to duty there that has characterized their conduct during their tour at the school.

I am pleased to report, however, that the above remarks apply to but few of the present class.

I would respectfully recommend that instruction in the Spanish language be given at the school. Should Saturday mornings be utilized for this instruction and practice, I am convinced by personal experience that under the Meisterschaft system a working knowledge of this idiom can be gained by all officers on duty here who will apply themselves to this interesting work, at the same time not interfering with any other studies of the school.

The Manual of Field Artillery, Brackenbury series, by Maj. Sisson C. Pratt, R. A., has been adopted as a text-book at the school.

It is respectfully recommended that paragraphs 10 and 11, school regulations, be carried out to the letter, in order that candidates for admission may have a year to prepare for their entrance in the school.

When the last class reported for duty it was found that eight of them were married, some with children.

Four of these families are now quartered in a few rooms of McPherson and Thomas halls, very uncomfortable, but little privacy for ladies, and almost without conveniences for health; no modern improvements in their apartments.

Were all the officers present belonging to the companies for duty at the school there would be great discomfort produced by crowding families into quarters, one above the other, in common halls, in same buildings.

Crowding produces discomfort; discomfort breeds discontent; with discontented subjects the best work can not be obtained.

On account of this great necessity, I urgently recommend that \$20,000 be allotted to the post of Fort Leavenworth for the erection of ten additional cottages, small but comfortable, for the use and occupation of the student officers who are married and have their families at the post.

In order that intelligent and progressive instruction can be had in the cavalry department, the immediate erection of a drill-shed is deemed of pressing necessity; this shed to be used in teaching officers how to ride and instruct in their profession, also biting and training horses. Drill of the trooper, platoon, and troop can be carried out in winter months.

A drill-shed of less dimensions is much needed for the use of the infantry companies at the post for drill, exercise, etc., during winter and

the soft months of spring and autumn, when all outside is covered with snow, slush, or mud, making it impossible to do work on the outside with any degree of comfort.

It is also requested that the officers on duty at the school as instructors be not detailed away from their assigned duties. During the past year the instructor in charge of the department of the art of war and infantry, also the instructor in charge of the department of cavalry, were ordered from the school, one in January, the other in March of same year.

The latter instructor is still absent on a tactical board, and it is not known when he can return; the duties of the former are efficiently performed by Maj. Jacob Kliue, Twenty-fourth Infantry.

Were there sufficient quarters at the post, some special instructors from the Army at large would be asked for, which would improve the condition of the school.

There should be a professional library at the school, containing books of reference not to be found in the ordinary library. The secretary of the school has made a commencement in this direction.

This school should be placed before Congress upon the same basis as the Artillery School at Fort Monroe.

The sum of \$5,000 should be appropriated by Congress each year, especially for the use of the school, and to continue until the appliances of a military university are secured.

The present infantry and cavalry school can now be considered as crystallized, and with proper appropriations, with the support and fostering care of the Major-General commanding the Army, will grow to the dignity of a valuable war college, of which this great nation may justly be proud.

I have no further recommendations as to course of study or change of regulations, preferring to subject both to another year's trial.

The success attending the school at the present time is due in a great measure to the intelligent assistance of the school staff, and to the fidelity and devotion to duty of First Lieut. O. L. Hein, First Cavalry, the secretary of the school.

The duty of the latter has been arduous and constant, and to him am I personally and officially indebted for valuable assistance in bringing the school to its present status.

Inclosed please find reports* of the proceedings of the school staff during examinations in the different subjects the individual reports* of the instructors of the art of war and infantry, of the departments of cavalry, of law, and of military engineering and surveying, all of which is respectfully submitted.

A. MCD. MCCOOK,
Colonel Sixth Infantry, Brevet Major General, U. S. Army,
Commandant.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

* Omitted.

REPORT OF THE ADJUTANT-GENERAL.

ANNUAL REPORT
OF
THE ADJUTANT-GENERAL.

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 5, 1888

SIR: I have the honor to submit my annual report for the year ending September 30, 1888.

MILITIA.

In accordance with requests of State authorities, officers of the Army were detailed during the past summer and fall to inspect militia encampments at the following points:

Alabama.—Near Mobile, Montgomery, and Selma, by Second Lieut. John T. Thompson, Second U. S. Artillery.

Delaware.—Near Wilmington, by Capt. G. S. Anderson, Sixth U. S. Cavalry.

Georgia.—Report not received.

Illinois.—Near Springfield, by Capt. J. Halloran, Twelfth U. S. Infantry.

Indiana.—At Evansville, by Capt. P. Harwood, Twentieth U. S. Infantry.

Iowa.—Report not received.

Michigan.—At Mackinaw Island, by Col. H. M. Black, Twenty-third U. S. Infantry.

Minnesota.—At Lake City, by Capt. J. H. Patterson, Twentieth U. S. Infantry.

Nebraska.—At Wahoo, by First Lieut. E. S. Dudley, Second U. S. Artillery.

New Hampshire.—At Concord, by Maj. R. H. Jackson, Fifth U. S. Artillery.

New York.—At Peekskill, by Maj. R. H. Jackson, Fifth U. S. Artillery.

North Carolina.—At Wrightsville Sound, by Capt. C. A. Woodruff, Second U. S. Artillery.

Ohio.—Near Columbus, by Maj. W. L. Kellogg, Nineteenth U. S. Infantry; First Lieut. A. C. Sharpe, Twenty-second U. S. Infantry and First Lieut. C. E. Kilbourne, Second U. S. Artillery.

Pennsylvania.—At Norristown, Mount Gretna, and Conneaut Lake, by Maj. A. O. M. Pennington, Fourth U. S. Artillery.

Vermont.—Near Newport, by First Lieut. P. Leary, jr., Fourth U. S. Artillery.

The reports appended hereto of the several inspecting officers are both interesting and suggestive. The presence at the several State encampments of members of over 60 regiments, 10 independent battalions, and 20 troops of cavalry or batteries of artillery, representing from 70 to 95 per cent. of the total strength of those organizations, evidences marked interest and steadily-increasing appreciation of the value of a "well-regulated militia" as the main reliance of a free people for national defense. The regularly organized and uniformed active militia of the several States, which in 1885 aggregated 84,739, reached 92,734 in 1886, increased to 100,837 in the following year, and July 2, 1888, represented an available force of 106,814 men.

A careful perusal of these reports leads me to make the following remarks and suggestions:

The personnel of the inspected organizations is excellent, and no better material could be found anywhere to make good soldiers. The officers are generally intelligent and fairly up in tactical knowledge, while a general desire is shown to learn.

Drill and discipline generally fair, in some instances excellent; arms and equipments, except in few instances, good, but not of uniform pattern—a very serious defect with regard to arms, but which it is confidently expected will be remedied in the near future, consequent on the largely increased appropriations by Congress.

Much attention should be given to company and battalion skirmish drills (obviously impracticable except at camps), as, while movements in masses will of course be always required in active service beyond the range of musketry, the battles of the future will be fought necessarily in open-order formation.

For the greater comfort of the men in drilling and marching, it would be well if a suitable shoe, of uniform pattern, were made part of the equipment, to be worn only when on military service.

Instruction in military signaling should be made part of the education of the troops. A knowledge of the code and use of the flag is easy of attainment, and the instruction of a small squad—say two non-commissioned officers and four privates—in each company would prove of much practical advantage.

In small encampments it is suggested that two guards mounting daily (twelve hours each) would afford greater opportunity for instruction in this important duty.

With a view to the troops in camps receiving the largest measure of benefit from the presence thereof of officers of the regular Army as instructors, I beg to recommend that for large encampments future details provide one officer to act as assistant adjutant-general to the command and one to each regiment.

MILITARY COLLEGES.

The table submitted is a synopsis of the data contained in the reports of the several officers detailed as professors of military science and tactics at the several colleges and universities.

While these reports are gratifying in showing increased results from the labors of the officers detailed as military instructors, the full measure of benefit will not be reached until military instruction and drills are made part of the curriculum of studies, and all students of proper

age, not physically disqualified, are *required* to attend lectures, recitations, and drills. Notwithstanding the increase in the average number of students during the past year, the percentage of students attending infantry drills (which for the year ending June 30, 1887, was not quite 49 per cent.) reached a fraction over 51 per cent. for the last scholastic year.

I regret, however, to notice, in some instances, the small proportion of students receiving military instruction and the limited interest, involving lack of hearty co-operation, in the efforts of the professor of military science.

Pennsylvania Military Academy, Chester.....	104	7	56	88	Excellent.....	Unrelenting.....	Excellent.....	Very great.
Pennsylvania State College, Centre County.....	134	4	19	101	Good.....	Great.....	Good.....	Great.
South Carolina Military Academy, Charleston.....	118		54	100	Very good.....	Satisfactory.....	Military.....	Very satisfactory.
University of the South, Sewanee, Tenn.....	203	35	21	138	Good.....	Great.....	Satisfactory.....	Satisfactory.
Agricultural and Mechanical College of Texas, College Station.....	125	4	18	110	Excellent.....	Excellent.....	Excellent.....	Good.
Norwich University, Northfield, Vt.....	64		19	30	do.....	Fair.....	Strict.....	Lively.
University of Vermont, Burlington.....	139			68	Good.....	Good.....	Excellent.....	Satisfactory.
Virginia Agricultural and Mechanical College, Blacksburgh.....	103			97	Very good.....	Very good.....	Excellent.....	Very good.
West Virginia University, Morgantown.....	147		85	95	High degree.....	Marked.....	Good.....	Fair.
University of Wisconsin, Madison.....	363		28	143	Very good.....	All that could be expected.	do.....	Very fair.

REGULATIONS FOR THE ARMY.

The amendments and changes in the regulations, rendered necessary to make the latter conform strictly with existing laws, have become so numerous as to make a new edition an imperative necessity.

TERM OF SERVICE.

The statistics of the Army, showing that 72 per cent. of its legal strength is composed of men having served three years and upward, indicate unmistakably that the greater part of the number of desertions occur within the first two years of the soldier's military life. One of the principal causes of desertion is undoubtedly the distant prospect of release from a service which inaptitude, restlessness, etc., has made distasteful, and as the most effective remedy I beg to recommend that section 1119 of the Revised Statutes be amended to reduce the term of service from five to three years.

DISCHARGES.

To protect the Government from the loss resulting from the discharge of men on their own application or that of their friends, and to increase the efficiency of the Army by elimination from its ranks of men unsuited for military life, I beg to recommend that—except in cases of minors or of men who have served long and faithfully—discharges be made conditional on the reimbursement to the Government of the expense of recruiting and transportation, or a fixed sum, say \$100.

LIGHT BATTERIES.

To keep a light battery to the highest point of efficiency demands the exercise, on the part of the battery commander, of rare powers of administration, unremitting industry, and a constant study of the professional literature pertaining to this special arm of the service. The detail to such commands for the limited period of four years tends to impair the efficiency of a capable commander by depriving him of the satisfaction of reaching the fruition of his labors. I can not, therefore, resist the conviction that when a captain, selected by his colonel (under the orders of the War Department, dictated by Mr. Secretary Marcy) as *best* qualified for the service, has been appointed by the Secretary of War to command a light battery, he should retain control of his special command until his promotion to a majority, retirement, or death.

ENLISTED RETIRED LIST.

The law of Congress of February 14, 1885, authorized a retired list for privates and non-commissioned officers of the Army who have served for a period of thirty years and upward, and the subjoined list exhibits the number, by classes, of veterans who have become beneficiaries under that law and the casualties that have occurred in the enlisted retired list since its creation:

Grades.	Total retirements.	Deaths since retirement.	Total living October 1, 1883.
Ordnance sergeant.....	69	7	62
Commissary sergeant.....	5		5
Hospital steward.....	10		10
Sergeant-major.....	1		1
Sergeant of ordnance.....	14	2	12
Sergeant of engineers.....	2		2
Sergeant of the Signal Corps.....	1		1
Saddler sergeant (cavalry).....	1		1
First sergeant (line).....	10		10
Sergeant (line).....	51	4	47
Corporal of engineers.....	2		2
Corporal of ordnance.....	6	2	4
Corporal (line).....	13	1	12
Private, engineers and ordnance (1st class).....	5		5
Farrier (cavalry).....	1		1
Principal musician and chief trumpeter.....	1		1
Musician and trumpeter.....	7	1	6
Private (line).....	46	5	41
Total.....	245	22	223

PAY OF NON-COMMISSIONED OFFICERS.

Fully convinced that the adoption of the recommendation I had the honor to make in my last report would subserve the best interests of the Army, I beg to restate, in brief, the reasons why such a measure should be adopted and urged upon the consideration of Congress.

Much of the efficiency of a company depends on its non-commissioned officers. The very small increase in the pay of this class, totally incommensurate with the responsibility attached to it, is not a sufficient incentive to tempt the best and most reliable soldiers to accept the position, while it is often to the pecuniary advantage of the man to remain in the ranks, as a private on extra duty receives more pay than the sergeant-major or quartermaster-sergeant of a regiment. That this fact is not only wrong but pernicious in its effects, needs no argument. The pay of the lowest non-commissioned officer should not be less than \$25, and the pay of the entire class re-adjusted on the suggested pay for the lowest position to \$50 or \$55 for the highest.

The grade of non-commissioned officer is the intermediary between the lowest in the Army, that of private, and the highest, the commissioned officer. The line of demarkation between these three classes should be as strongly accentuated downward as it is upward, and this is demanded alike by justice to the non commissioned officers and proper regard for the discipline, efficiency, and *morale* of the Army.

THE MILITARY PRISON.

The number of prisoners remaining in the military prison at Fort Leavenworth, Kans., June 30, 1887, was 496. During the year following that date the gain and loss were represented by 349 and 357, respectively, leaving 488 in the prison June 30, 1888.

The prison statistics for the past few years indicate that with the Army at its present standard the prison will receive from 350 to 400 prisoners annually, unless some means of checking the crime of desertion shall be discovered. While desertion, like other crimes, can not be entirely eradicated, punitive measures can and should be adopted that, while marking the heinousness of the military offense, will, at the same time, prove reformatory to the individual.

The military prison as at present administered probably accomplishes this desirable result in the best manner yet tried, combining, as it does,

useful and constant employment, strict but just discipline, with enforced confinement.

The work done by the military prisoners may therefore be regarded with greater interest than usually attaches to such exhibits, and the following will show the application of the prison system of industrious employment during the year :

The articles of supply manufactured were: 35,586 pairs of shoes, 8,181 pairs of boots, 975 sets of harness, 3,713 different articles of harness gear, 23,527 joints of stove-pipe, 6,160 stove-pipe elbows, 2,893 stove-pipe collars, 6,704 articles of tin-stove furniture, 21,378 brooms, 4,116 barrack chairs, 4,248 stable brooms, 2,261 articles of barrack and other furniture, besides many miscellaneous articles.

The yield of the farm, which represents valuable work also, was 6,174 bushels of Irish potatoes, 2,000 bushels of corn, 652 bushels of beets, 470 bushels of turnips, 479 bushels of tomatoes, 400 bushels of parsnips, 240 bushels of spinach, 393 bushels of onions, and nearly 600 bushels of other vegetables, besides 30,000 heads of cabbage and 4,263 pounds of broom-corn.

A great deal of labor was also performed by prisoners upon the permanent improvements at the prison, in the stone quarry, and for the depot quartermaster about the post. A new boiler-house of stone, 46 by 80 feet, with a smoke-stack 89 feet high, was erected, and six boilers set by prison labor.

The aggregate number of days' labor performed is 149,438, of which 50,689½ days' skilled labor, at 50 cents per day, and 18,256 days' unskilled labor, at 35 cents per day, were performed for the Quartermaster's Department, making a credit of \$31,734.47. Stores and equipage to the value of \$2,424.02 were drawn from the Quartermaster's Department and charged against the account for labor, which account, including the earnings of former years, showed at the close of the year a credit in favor of the prison of \$182,608.16. The sum expended for the support of the prison during the year was \$82,327.18, and the sum of \$7,511.20 was turned into the United States Treasury on account of savings of rations and sales of miscellaneous articles and products.

Careful attention has been given to the health of the prisoners, and one of the measures proposed for their benefit is the introduction of a system of electric lights. It is necessary to keep the dormitories lighted at night, and the substitute of electric lights for oil lamps will be a great relief.

Heretofore it has been necessary to remove prisoners who became insane to the Government Hospital for the Insane in the District of Columbia for treatment, and it appeared almost certain that in a number of cases the malady was feigned, in the hope that it would afford opportunity for regaining liberty after a brief period of treatment in the asylum; but now arrangements have been made for the treatment of these cases at the prison in a ward especially constructed for the purpose.

The commissioners have visited the prison and the regular inspections have been made, as required by law. The administration of the prison affairs by the commandant and his assistants has been satisfactory.

Capt. A. P. Blunt, brevet colonel, U. S. Army, assistant quartermaster, who filled the position and discharged the duties of commandant of the prison for more than thirteen years, was relieved December 31, 1887, upon his own request, on account of failing health. His work in establishing the prison and bringing it up to its present high standard of excellence as an industrial punitive institution can not be too highly appreciated. He was succeeded by Capt. J. W. Pope, assistant quar-

termaster, whose experience at the prison fitted him to assume the direction of its affairs, which he has undertaken with commendable energy.

GOVERNMENT HOSPITAL FOR THE INSANE.

The following is a list of persons committed to the Government Hospital for the Insane, under the order of the honorable Secretary of War, from October 1, 1887, to October 1, 1888:

Officers of the U. S. Army	2
Enlisted men of the U. S. Army	37
Late soldiers of the U. S. Army	2
Military prisoners	3
Total	44

WORKING OF THE OFFICE.

The clerical force of this office remains the same as at the date of my last report, but by the legislative and executive appropriation act for the present fiscal year the number of assistant messengers has been reduced from fifty one to forty-four, and the force of twenty watchmen has been reduced to three.

The following table exhibits the work of the enlisted volunteer pension branch and other divisions of the office engaged in the preparation of reports on claims for pension, bounty, homestead grants, etc.:

Statement of calls from the Commissioner of Pensions, Second Auditor, etc., for full or partial histories of officers and men of the late volunteer forces, in connection with claims for pension, bounty, back pay, subsistence, land claims, lost horses, etc.

	On hand October 1, 1887.	Received during the year.	Total.	Finished during the year.	On hand October 1, 1888.
<i>Commissioner of Pensions..</i>					
Enlisted volunteer pension branch	18,414	145,310	163,730	155,398	8,332
Colored troops division	4,070	1,413	5,483	4,024	1,459
Volunteer service branch	802	3,400	4,091	3,456	635
Total	23,086	150,218	173,304	162,878	10,426
<i>Second Auditor.</i>					
Enlisted volunteer pension branch	4,756	36,711	41,467	38,027	3,440
Colored troops division	649	678	1,327	399	928
Volunteer service branch	1,572	5,263	6,835	5,261	1,574
Total	6,977	42,652	49,629	43,687	5,942
<i>Third Auditor.</i>					
Volunteer service branch	46	271	317	280	37
<i>General Land Office.</i>					
Enlisted volunteer pension branch	928	1,500	2,428	1,868	560
<i>Subsistence Department.</i>					
Enlisted volunteer pension branch	515	2,338	2,853	2,517	336
Colored troops division	1	9	10	9	1
Total	516	2,347	2,863	2,526	337

RECAPITULATION.

Number of calls from all sources:	
On hand October 1, 1887	31,553
Received during the year	196,988
	228,541
Finished during the year	211,239
	17,302
Remaining on hand October 1, 1888	
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This result is very gratifying, and entitles the clerks engaged in this important work to deserved praise for efficiency and faithfulness.

In the early spring of this year the several divisions of this office occupying rented buildings were brought in and assigned quarters in the State, War, and Navy Building, and the transfer was effected with the least possible derangement of the conduct of business, reflecting much credit on the clerks selected to superintend the removal of the large mass of records contained in the three buildings to be vacated.

After this transfer was effected the colored troops division was discontinued and its files and records divided, according to affinity, between the volunteer service and the enlisted volunteer pension branches. The former has now charge of all files and records pertaining to the history of all volunteer officers, while the latter has all the muster-rolls, together with company and regimental records affecting enlisted men of the late volunteer organizations.

The urgency of prompt action on the many applications for amendment of the military record of officers of volunteers caused me to create a new division to have entire charge of this class of claims.

On the organization of the "remuster division," March 26, 1888, there were on file 9,565 claims for amendment of muster. The number disposed of from March 26 to October 1, 1888, is 3,446, leaving 6,119 claims on hand. The act of June 3, 1884, expired by limitation June 3, 1887, but by the act of August 13, 1888, the time for filing claims under the first act was extended five years. Up to this date there have been received under the late act 318 claims, and it is not believed that the number to be received under the amending law will be so considerable as to disturb the conviction that a continuance of the very efficient service of the remuster division will enable this office to close out this class of claims by the end of May next.

The following is an exhibit of the work of the deserters division during the past year:

Under act of July 25, 1884:		
Charge removed	3,243	
Removal of charge denied.....	3,516	
		<hr/> 6,759
Under act of May 17, 1886:		
Charge removed	67	
Removal of charge denied.....	370	
		<hr/> 437
Total number of cases acted on.....		<hr/> 7,196

The work of this important division is practically up to date, the number of cases on hand, about 300, being in process of investigation. The applications received daily do not exceed the working capacity of the intelligent and capable clerks of the division.

The clerical force of the volunteer registers division, supplemented by such details as could be made from other divisions, has, since March 21, 1888, been actively engaged in the preparation of "record slips," giving on each the full military history of the man whose name appears at the top, as shown by the several rolls of the organization of which he was a member. This system has been adopted after very careful consideration, as a valuable improvement on the old method of preparing volunteer registers, and offers the best solution of the vexatious problem of the preservation of these most important records.

From March 22 to October 1, 1888, 5,156 individual slips have been

completed and verified, representing 5 regiments, and, unless in rare cases, obviating reference to the 1,034 rolls belonging to these organizations; 13,015 additional record slips have been made, which, when verified, will permit the filing away of 3,149 rolls.

It gives me sincere pleasure, in closing this report, to testify to the general intelligence, zeal, and efficiency of my clerks.

Respectfully submitted.

R. C. DRUM,
Adjutant-General.

Hon. WILLIAM O. ENDICOTT,
Secretary of War.

MILITARY PRISON REPORTS.

U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 9, 1888.

SIR: I have the honor to transmit herewith annual reports of the quartermaster, surgeon, and chaplain on duty at this prison, together with different tabulated statements showing the work performed by prisoners, the number of prisoners received, discharged, offenses, age, occupation, nativity, etc.

In compliance with paragraph 11, Special Orders No. 298, Headquarters of the Army, Adjutant-General's Office, December 27, 1887, I relieved Bvt. Col. A. P. Blunt, U. S. Army, of the duties of commandant of this prison on January 1, 1888, and have since discharged said duties in addition to those heretofore performed by me.

The following-named officers are now at this prison in the execution of their respective duties, viz: First Lieut. G. S. Hoyt, Eighteenth Infantry, executive officer; First Lieut. George F. Cooke, Fifteenth Infantry, commanding provost guard; First Lieut. C. W. Mason, Fourth Infantry, prison acting commissary of subsistence; and First Lieut. W. A. Nichols, Twenty-third Infantry, prison adjutant and custodian of prisoners' deposit fund.

The following officers were relieved from further duty at this prison, viz: Capt. W. H. Hamner, Twentieth Infantry; First Lieut. T. G. Townsend, Sixth Infantry; and First Lieut. B. H. Cheever, jr., Sixth Cavalry.

A number of improvements have been made in and about the prison during the year just closed, as will be seen by the following: The new mess-hall located on the first floor in the new building was fitted up, tables and benches being made for same. The seating capacity is estimated at 570. This gives much better satisfaction than the old mess-room, having a sufficiency of good light and ventilation, besides giving a larger amount of room. A new boiler-house was erected of stone, 46 by 80 feet, tin roofed. In addition to the four old boilers, two new boilers were purchased and placed. This addition will increase the steam power to a considerable extent. The smoke-stack of this boiler-house is 89 feet high, and the entire work of building, as well as setting the boilers, etc., was done by prison labor. The second floor of the new building has been fitted up as a dormitory, and the new second class has moved into the same, so that this building now holds about four-fifths of all the prisoners. The east ward of the prison hospital was extended, as shown by the report of the quartermaster, herewith. A privy has also been added to the hospital, being a brick structure one story high, 10 by 13½ feet, roofed with tin shingles. For the use of the prisoners a new privy of brick has been erected, 12 by 48 feet, one story high, with tin roof. A new paint-shop has been built, 16 by 40 feet, one story, brick, tin roof, with basement for oil-room, 8 feet deep. The smoke-stack of the old boiler-house was taken down, and supplied the chief part of the brick for the structures above named. On the south end of the guard's barracks a piazza has been constructed, 7 feet 9 inches by 38 feet, roofed with tin. In the old tailor-shop, over the store-room, an insane ward, containing ten iron cells, has been constructed. These cells are 7 by 8 feet, and 8 feet high, open iron grating front, back, and above, with boiler-iron partitions. Under the roof of the old boiler and engine room has been constructed a dry kiln. (See report of prison quartermaster.) The location of the mess-hall and the erection of the boiler-house were done by my predecessor.

The foregoing has only reference to the permanent improvements of which the labor was all done by prisoners, but does not include all work done by the prisoners, nor all the labor connected with those improvements.

There were burned during the year 3,000 bushels of lime; used for building and sanitary purposes.

A complete statement of the workings of the different shops will be found in the report of the prison quartermaster, together with recommendations regarding same, to which attention is invited.

The following is the account of the prison with the Quartermaster's Department:

Due prison from Quartermaster's Department June 30, 1887.	\$153,297.71	
To labor performed for Quartermaster's Department during the year	31,734.47	\$185,032.18
By quartermaster's stores received	26.33	
By clothing, camp and garrison equipage received	2,297.69	2,424.02
Due prison June 30, 1888		182,608.16

Showing a net increase of \$29,310.45.

The appropriation for the support of the prison, etc., as well as the expenditures therefrom, are exhibited in the following:

Statement of appropriation for fiscal year 1888.

Items.	Appropriated.	Expended.	Unexpended.
Subsistence of prisoners	\$28,400.00	\$25,128.63	\$3,271.37
Commutation of prisoners en route to Government Asylum for Insane	100.00	21.00	79.00
Tobacco	540.00	407.88	132.12
Material for illuminating supplies	1,700.00	1,699.67	.33
Forage and bedding for animals	2,718.00	2,716.00	
Hay for prisoners' beds	511.75	511.75	
Stationery	950.00	950.00	
Fuel and miscellaneous supplies	18,000.00	18,000.00	
New boilers	1,500.00	1,475.00	25.00
Medical supplies	2,000.00	1,999.99	.01
Clothing, etc	8,000.00	7,972.13	27.87
Advertising	100.00	59.10	40.90
Apprehension of escaped prisoners	300.00	30.00	270.00
Donations to prisoners at discharge	1,800.00	1,730.00	70.00
Extra-duty pay to guard	713.70	640.50	73.20
Pay of civilian employees	14,119.92	13,891.92	120.00
Material for building, etc	4,986.75	4,985.61	1.14
Total for prison proper	86,438.12	82,327.18	4,110.94
Donations and clothing for prisoners discharged at posts	2,400.00	2,267.63	132.37
Grand total	88,838.12	84,594.81	4,243.31

RECAPITULATION.

Appropriated	\$88,838.12
Expended	84,594.81
Unexpended balance	4,243.31

Of this amount the appropriation and expenditures for posts (as provided in General Orders No. 66, Adjutant-General's Office, series of 1886) should be deducted as shown above, which would leave the appropriation and expenditures for the prison proper as follows:

Appropriated	\$86,438.12
Expended	82,327.18
Balance	4,110.94

As \$7,500 was turned into the Treasury, as shown below, the cost of the prison during the year is	82,327.18
Less	7,500.00
	74,827.18

Of this unexpended balance there remains in the United States Treasury undrawn	3,038.12
Balance on hand to be turned into Treasury	1,205.19
Total	4,243.31

The sum of \$11.20, received by sale of condemned prison property, was taken up and covered into the United States Treasury.

The following figures exhibit the standing of the prison mess account:

Balance on hand June 30, 1887.....	\$7,786.96	
Received during year from various sources.....	4,403.52	
		\$12,190.48
Expended during the year.....	2,623.75	
Turned into the United States Treasury.....	7,500.00	
Balance on hand June 30, 1888.....	2,066.73	
		12,190.48

The prison farm yielded during the past year the following: 6,174 bushels Irish potatoes; 100 bushels sweet potatoes; 2,000 bushels corn; 652 bushels beets; 470 bushels turnips; 470 bushels tomatoes; 60 bushels green tomatoes for pickles; 400 bushels parsnips; 240 bushels spinach; 213 bushels onions, spring; 180 bushels onions, winter; 250 bushels carrots; 80 bushels cucumbers; 60 bushels radishes; 62 bushels squash; 66 bushels okra; 51 bushels lettuce; 24 bushels beans; 70 bushels peas; 30,000 heads of cabbage; and 4,263 pounds broom-corn.

The acreage under cultivation this year is as follows: 80 acres potatoes, 140 acres corn, $1\frac{1}{2}$ acres onions, one-half acre beets, one-half acre carrots, $1\frac{1}{2}$ acres parsnips, 5 acres broom-corn, 1 acre beans, 1 acre sweet corn, 1 acre sweet potatoes, 1 acre late cucumbers, 1 acre early turnips, and 2 acres late turnips.

On account of the unprecedented rain-fall, the extremely cold and backward spring, and the high water in the Missouri River, the yield of the farm will not exceed one-half crop unless the weather remains very propitious until the crop is all harvested. The high water has already covered and destroyed a considerable portion of the plant.

The inclosed report* of the prison surgeon shows a very gratifying state of affairs, due chiefly to his own untiring devotion to duty and to his constant care and forethought for the sanitary welfare of the prisoners, in the treatment of whom he has always been actuated by the spirit of humanity and kindness. Great care has been taken to perfect the sewerage of the prison and to promote its sanitary condition. Three deaths occurred among the prisoners; two being by disease and one by accident. Only one death is to be recorded among the members of the provost guard, that of Corporal John Wagner, by suicide, on June 17, 1888, near Fort Leavenworth, Kans.

The conduct of the prisoners during the year has been generally good; the offenses committed not often of a serious nature. The more serious offenses have been punished by court-martial. The only really troublesome cases with which I have had to deal have been those of certain prisoners who have been practicing the simulation of insanity and under that pretense have disturbed the quiet of the prison and committed various excesses. The difficulty is greatly enhanced in such cases by absence of any conclusive mode of detecting the simulation and the subsequent necessity of dealing gently with such as may be suffering under the most unfortunate of maladies. Since the construction of the new cells, securing a perfect observation of the occupant day and night, and indicating to the prisoner that he was not likely to be sent to the asylum at Washington, all the cases have broken down and have either openly or tacitly admitted the act of simulation. The cells are so well adapted to this purpose that it will scarcely be necessary to send any more prisoners to the insane asylum at Washington.

Five prisoners escaped during the year, one during the last six months; two were recaptured, thus making the total loss by escape three.

The new officers detailed on duty here have taken hold of their new duties with zeal and are performing the same in a satisfactory manner.

Very respectfully, your obedient servant,

J. W. POPE,
Captain and A. Q. M., U. S. A., Commandant.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

OFFICE OF THE ASSISTANT QUARTERMASTER, U. S. MILITARY PRISON,
Fort Leavenworth, Kans., July 9, 1888.

SIR: I have the honor to render the following report of the operations conducted by the quartermaster's department during the fiscal year ending June 30, 1888.

These duties, heretofore described, pertaining to this department were continuously performed by me during the year, though the additional duties of commandant were assigned to me for the latter half of the fiscal year.

* Omitted.

SHOE-SHOP.

There are employed in this shop one inspector, at \$116.66 per month; three foremen, at \$100 per month each; prisoners varying from 120 to 135, amounting to 35,671 days' labor, valued at 50 cents per day; total, \$17,835.50. One machinist has also been employed at \$100 per month and paid from the prison appropriation in the sundry civil bill.

Manufactured during the year.—Six thousand and fifty-six pairs sewed cavalry boots, 1,499 pairs brass-screwed (old style) boots, 626 pairs brass-screwed cavalry boots (new style), 12,288 pairs sewed post shoes, 20,348 pairs sewed campaign shoes, 2,950 pairs brass-screwed (old style) shoes.

The price charged the soldier for the above is as follows: Sewed cavalry boots, \$3.92; cavalry boots (new style), \$3.47; brass-screwed (old style) boots, \$2.47; sewed post shoes, \$2.70; sewed campaign shoes, \$2.61. This price is based on the cost of material as purchased under bids opened June 16, 1887, including prison labor at 50 cents per day, but excluding the value of the scrap leather sold, the proceeds of which are turned into the Treasury.

I have heretofore recommended that the soldier be given *gratis* the benefit of the prison labor, and can only renew the same. The excluding of the proceeds from the sale of scrap leather from the making up of the price of shoes constitutes a positive charge by the Government to the soldier over and above the entire cost of the shoes, with labor included. The cost of the above articles at the prices of materials as contracted for this year, and including estimated price received from sale of scrap leather, would be as follows: Cavalry boots, \$3.63; post shoes, \$2.65; campaign shoes, \$2.35. The cost of prison labor at 50 cents per day is included herein.

The manufacture of all sewed work has been changed, so that all welts are now hand-sewed, the welt machines being discarded, to the decided advantage of the manufactured articles. The outer seam is sewed by the Goodyear & McKay stitcher, with a thread known as "metalin," composed of eight strands of flax and two strands of brass wire. I find that the wire wears through readily, but after parting forms a sort of head like that of a nail, and seems to hold well. I have had no complaint and have seen no reason for any alteration in the favorable report made last year. The supply of calf-skin has enabled the shop to continue the manufacture of post shoes during the year; the orders now on hand will exhaust the supply. Two hundred and fifty pounds of calf-skin (too light for soldier wear) has been set aside, by authority of the Quartermaster-General, for making shoes for sale to officers, the demand for which has greatly increased during the year.

The great demand for post shoes during the past year (much greater than could be met) has gone to prove what I stated in my last report, that these post shoes were the most popular shoes ever issued to the Army. If they had been continued during the coming year the low present price of calf-skin would have reduced their cost to about \$2.50. I believe that (brass-screwed) these shoes would last nearly as well as campaign shoes.

Additional evidence has come to hand during the year to prove that it is not due to defective workmanship or inferior material that the prison shoes fail to wear well in the climate and soil of Arizona. An officer of experience writes from there of a pair of "Thompson boots, Harman & Co., New York," costing \$14; "I had worn them but a few times prior to October 3, when I started on a raid to Fort Apache, where I arrived October 18, with my boots so worn that they could not be properly repaired and were of no further use to me. The soles ripped and came apart and were only held together till I reached Fort Apache by nailing with the points of horseshoe nails. These were, without doubt, good boots, both in make and material, and to my mind proves that sewed boots can not be made to stand the kind of wear given them in these mountains."

Among eight pairs of shoes sent back from Arizona on report of a board of survey as defective, because on a campaign they wore out in less than fifteen days, six were sewed post shoes, which are only for light garrison duty, and one pair sewed campaign shoes and one pair obsolete field shoes. It was shown in my last report that shoes of the same kind that were used in and sent back as defective from Arizona stood well the hard wear of prisoners here at hard labor. It is seen above that the best make of sewed boots will not endure the service there. It seems conclusive that no sewed work will wear well in Arizona, and I recommend therefore that no sewed boots or shoes be sent to Arizona, but all footwear for service there be brass screwed and be hob-nailed or tap-soled.

HARNESS-SHOP.

There are employed in this shop one foreman, at \$100 per month, and fifteen prisoners, or 3,586 days' labor, at 50 cents per day; total value, \$1,794.

Manufactured during the year.—One hundred and thirty-six riding-bridles, 62 wagon-bridles, 681 halters, 795 halters and straps, 235 single ambulance lead-harness, 224

single ambulance wheel-harness, 108 sets cart-harness, 16 single express-harness, 270 single wagon lead-harness, 114 single wagon wheel-harness, 8 single truck wheel-harness, 94 sets ambulance lead-lines, 151 sets ambulance wheel-lines, 6 sets ambulance-lines (6 horse), 10 lead-lines (6 mule), 2 cart-lines, 12 sets wagon-lines (6-mule), 53 check-lines, 283 side-lines, 2 cart saddles, 73 riding saddles, 152 wagon saddles, 132 breast-straps, 527 halter-straps, 410 hame-straps, 7 pole-straps, 14 pairs hobbles, 18 wagon-whips, 75 surcingles. Cost, including labor, as follows: 136 riding-bridles, at 79 cents each; 62 wagon-bridles, at \$1.87 each; 681 halters, at \$1.02 each; 795 halters and straps, at \$1.28 each; 235 single ambulance lead-harness, at \$17.25 each; 224 single ambulance wheel-harness, at \$19.38 each; 108 sets cart-harness, at \$19.04 each; 16 single express-harness, at \$27.13 each; 270 single wagon lead-harness, at \$9.43 each; 114 single wagon wheel-harness, at \$19.19 each; 8 single truck wheel-harness, at \$20.07 each; 94 sets ambulance lead-lines, at \$2.98 set; 151 sets ambulance wheel-lines, at \$2.16 set; 6 sets ambulance-lines (6-horse), at \$2.82 set; 10 sets lead-lines (6-mule), at \$1.94 set; 2 sets cart-lines, at \$1.50 set; 12 sets wagon-lines (6-mule), lead, at \$1.94; 53 check-lines, at 65 cents each; 283 side-lines, at 63 cents each; 2 cart saddles, at \$4.36 each; 73 riding saddles, at \$9.02 each; 152 wagon saddles, at \$3.81 each; 132 breast-straps, at \$1.08 each; 527 halter-straps, at 33 cents each; 410 hame-straps, at 7 cents each; 7 pole-straps, at \$1.30 each; 14 pairs hobbles, at 64 cents pair; 18 wagon-whips, at 84 cents each; 74 surcingles, at 90 cents each.

No decision has yet been received by me regarding the change in the specification for harness mentioned in my last annual report.

TIN-SHOP.

There has been employed herein one foreman, at \$100 per month, and eleven prisoners, or 3,140 days' labor, at 50 cents per day; total value, \$1,570.

Such reports as have come to my hands regarding tin-ware, as made under the new specifications, have been entirely favorable.

Manufactured during the year.—One thousand three hundred and twenty-five tin wash-boilers, 23 copper wash-boilers, 567 tin coffee-boilers, 723 square tin boilers, 141 square copper boilers, 403 round tin boilers, 8 round copper boilers, 898 tea-kettles, 231 round steamers, 12 square steamers, 138 pot-covers, 1,597 bake-pans, 13 tea-pots, 313 coffee-pots, 14 dish-pans, 12 saucepans, 2 boiler-covers, 16 tin pans, 23,527 joints stove-pipe, 6,160 stove-pipe elbows, 188 flue-stoppers, 2,893 stove-pipe collars, 48 flue-thimbles, 107 T-joints, 85 stove-pipe dampers, 1 oil-tank (55 gallons), 2 water-heaters, 1 coal-scuttle, 8 feet galvanized pipe (6 inches), including labor. Cost as follows: 1,325 tin wash-boilers, average price, at \$1.16 each; 23 copper wash-boilers, at \$2.61 each; 567 tin coffee-boilers, average price, at 59 cents each; 723 square tin boilers, average price, at \$2.08 each; 141 square coffee-boilers, average price, at \$4.32 each; 403 round tin boilers, average price, at \$1.43 each; 8 round copper boilers, average price, at \$4.50 each; 898 tea-kettles, average price, at 55 cents each; 231 round steamers, average price, at 25 cents each; 12 square steamers, average price, at 87 cent each; 138 pot-covers, average price, at 6 cents each; 1,597 bake-pans, average price, at 32 cents each; 13 tea-pots, average price, at 53 cents each; 313 coffee-pots, average price, at 36 cents each; 14 tin dish-pans, average price, at 96 cents each; 12 tin saucepans, average price, at 54 cents each; 2 boiler-covers, at 40 cents each; 16 tin pans, average price, at 50 cents each; 23,527 joints stove-pipe, average price, at 24 cents joint; 6,160 stove-pipe elbows, average price, at 20 cents each; 188 flue-stoppers, average price, at 8 cents each; 2,893 stove-pipe collars, average price, at 6 cents each; 48 flue-thimbles, at 5 cents each; 107 T-joints, average price, at 33 cent each; 85 stove-pipe dampers, at 7 cents each; 1 oil-tank (galvanized iron, 55 gallons), at \$4.90; 2 water-heaters, at 93 cents each; 1 coal-scuttle, at 69 cents.

BROOM-SHOP.

There were employed in this shop eight prisoners, or 2,116½ days' labor, at 50 cents; total, \$1,058.25.

Manufactured during the year.—Twenty-one thousand three hundred and seventy-eight brooms, at a cost of 16 cents per each, including labor.

The brooms have been made with a patent shoulder, composed of two parallel sticks, with slits for wrapping the wire around, and used nowhere else. I found that a prisoner taught this mode of manufacture would not acquire a trade that would be of benefit to him after leaving the prison, and I found by trial that we could make brooms as well and more cheaply by the ordinary method, so that in January, 1888, after having the prisoners taught the usual method, I changed so that the manufacture of brooms now conforms to the usual method. The specifications for brooms adopted by the Quartermaster-General do not require the patent shoulder.

BLACKSMITH-SHOP.

Employed 1,463½ days' labor, at 50 cents, \$731.62, in manufacture of the following: Fifteen thousand five hundred bolts for barrack chairs, 411 pairs table legs, 396 pairs bench legs, 212 cart saddle-irons, 86 stove-pipe damper-rods, 115 jockey-stick irons.

TAILOR-SHOP.

Thirty-one days' prison labor, at 50 cents per day, amounting to \$15.50, in making officers' clothing.

CARPENTER-SHOP.

In this shop there have been employed 4,610 days' labor, at 50 cents, amounting to \$2,305, in manufacturing 4,116 barrack chairs, at \$1.64 each; 372 mess-tables, at \$5.65 each; 642 mess-table benches, at \$2.50 each; 4,248 stable brooms, at 28 cents each; 1,143 stable-broom handles, at 8 cents each; 41 company field-desks, at \$7.14 each; 62 saddle-trees for cart harness, at 75 cents each; 1 regimental field desk, at \$10.63.

The very considerable increase in the cost of barrack chairs (from \$1.42 to \$1.64) was due to the increased cost of the rawhide seats and thongs, which this year reached 94 cents; it will be for the coming year 74 cents. In my opinion the rawhide seat is, in addition to its exorbitant cost, very objectionable as a seat for a chair for army use. The rawhide shrinks each time it dries after getting damp until it draws the chair out of shape or breaks the rungs. I have tried some seats made of indurated paper, and while they seem to serve the purpose better than rawhide, and would be much cheaper and as light for transportation, I don't feel sufficiently satisfied to do more than recommend the manufacture of a few chairs with indurated paper seats for trial. The old barrack chair with arms, despite its weight, could be put down at posts about as cheaply as this chair, and it is much more durable, and is superior. The cost of the arm-chair would be \$1.21½ at present prices. It might be advisable to invite suggestions from the Army with reference to this matter.

In manufacturing such articles as mess-tables and company desks, it is necessary to have the lumber as dry as possible to avoid shrinkage, and it is practically impossible to purchase such lumber in any market. A dry-kiln is being built which will admit of properly preparing lumber for such objects, and will be a necessity if common furniture or such lockers as have been submitted by Capt. G. W. Davis, Fourteenth Infantry, should be manufactured at this prison. With this kiln the prison could readily manufacture any such ordinary furniture as may be desired.

In connection with furniture, I beg leave to suggest that a considerable saving might be made by the quartermaster's department if all the heavier articles of company property, such as bunks, mattresses, barrack-chairs, etc., should be attached to the posts and turned in when companies leave and drawn when they arrive. This would also save the damage to property necessarily incident to transporting it. As such property does not pertain to field service, it seems to me it should be left at posts, as libraries are.

PAINTERS.

Ten days' prison labor, at 50 cents per day, amounting to \$5, in painting one carriage.

The following labor was performed for the depot quartermaster, Fort Leavenworth, Kans.: Carpenters, 55 days, at 50 cents per day, \$27.50; brick-layers, 5 days, at 50 cents per day, \$2.50; and laborers, 18,256 days, at 35 cents per day, \$6,389.60.

The quartermaster's department also erected during the fall a wing of the prison hospital for the use of the provost guard, as follows: 25 feet long, 26 feet wide, with hollow brick walls one story high, covered with tin shingles—total cost, \$496.74.

TOTAL LABOR.

The total amount of skilled labor employed by the quartermaster's department, 50,609½ days, valued at	\$25,344.87
The total amount of unskilled labor, consisting of prisoners turned over as laborers, at 35 cents per day, to the depot quartermaster, 18,256 days, valued at	6,389.60
Total skilled and unskilled	31,734.47

RECEIPTS.

Sales to officers of fuel and forage	\$647.94
Sales to officers of boots and shoes	690.63
Sales to officers, miscellaneous quartermasters' stores	26.50
Sales at auction, condemned stores	35.35
Sales of scrap leather	3,215.62
Sales of grain sacks with above leather	62.90

The use of sealed proposals in selling scrap leather has continued successful, the prices received being as follows:

	First sale.	Second sale.
Heads and shanks.....per cwt..	\$11.25	.....
Scrap sole leather.....do..	2.75	\$2.86
Scrap upper leather.....do..	5.50	3.01
Scrap harness leather, black.....do..	7.25	2.50
Scrap harness leather, fair.....do..		.50

The purchase of cropped leather has been found of advantage and has been extended. This accounts for the falling off in receipts for scrap.

EXPENDITURES.

The disbursements of the quartermaster's department made during the fiscal year, including amount due on articles ordered, and a portion of appropriation for fiscal year of 1886-'87, are as follows:

Regular supplies (tin-ware, etc.)	\$22,033.97
Incidental expenses (mess-tables, benches, clerical services, etc.)	5,704.75
Transportation of the Army (harness, company desks, etc.)	15,584.47
Clothing, camp and garrison equipage (boots, shoes, barrack chairs, etc.)	105,192.30
Hospitals	496.74
Appropriation for cavalry and artillery school buildings at Fort Riley, Kans	7.88
Total	149,020.11

Of the above, the following amounts were paid on account of fiscal year of 1886-'87:

Regular supplies	\$236.31
Incidental expenses	3.62
Army transportation	6.00
Clothing and equipage	862.38
Total	1,108.31

TRANSPORTATION.

There have been transported from this prison to general depots of the Quartermaster's Department, and to the various posts (manufactures and other articles), 676,531 pounds of freight on 1,044 bills of lading.

Prisoners transported back to last places of enlistment and escorts to their posts 624 persons, on 662 transportation requests.

Very respectfully, your obedient servant,

J. W. POPE,
Captain and A. Q. M., U. S. A.

The ADJUTANT U. S. MILITARY PRISON,
Fort Leavenworth, Kans.

MILITIA REPORTS.

FORT SCHUYLER, NEW YORK HARBOR, June 20, 1888.

GENERAL: In obedience to paragraph 7, Special Orders No. 119, current series, from the Headquarters of the Army, and letter of instructions from your office, dated May 24, 1888, I have the honor to make the following report of my observation of the New Hampshire National Guard at the State camp at Concord, N. H., during the seven days' encampment, commencing June 9 and ending June 15, 1888.

The troops composing the First Brigade New Hampshire National Guard arrived in camp on the 9th, and at once proceeded to duty, as required by General Orders No. 4, from brigade headquarters; guard-mounting, drill, dress-parade, etc., taking place in succession. The camp had been prepared by details from the several commands, working under the direction of the brigade quartermaster, Captain Louis C. Merrill.

ORGANIZATION.

The brigade consists of the First, Second, and Third Regiments of Infantry; Troop A, cavalry, and the First Light Battery New Hampshire National Guard.

The following table shows the average strength of the command for the seven days:

Troops.	Companies.	Present.		Absent.		Total present and absent.	
		Officers.	Men.	Officers.	Men.	Off.	Men.
Brigadier-general and staff.....	—	9	5	1	—	10	5
First Regiment of Infantry.....	8	30	324	2	50	32	383
Second Regiment of Infantry.....	8	32	252	1	105	33	357
Third Regiment of Infantry.....	8	30	250	2	102	32	352
Troop A, cavalry.....	1	3	55	—	—	3	55
First Light Battery.....	1	4	68	—	—	4	68
Total.....	26	108	954	6	266	114	1,220

The attendance of the First Regiment during the encampment was 85.30 per cent.; of the Second Regiment, 72.82 per cent.; and of the Third Regiment, 72.91 per cent. Troop A, cavalry, and the light battery had every officer and enlisted man present.

CLOTHING.

The New Hampshire troops have been supplied with new clothing since the camping season of last year. The uniform coat and trousers are of the Army texture and pattern. The officers, non-commissioned officers, and privates are now well provided with suitable clothing for all kinds of service.

ARMS AND EQUIPMENTS.

The infantry is armed with the Springfield rifle, caliber .45, the old cartridge-box, and the steel bayonet-sabbard. The troop of cavalry is armed with the saber and the battery of artillery with four light 12-pounders. The arms were all clean and in good condition for service. The old knapsack, which is not of much service, is used by

the infantry. The tents, with the exception of a few at brigade headquarters, were the same that were in use last year; they are kept in excellent condition.

THE STAFF DEPARTMENTS.

Maj. Gen. A. D. Ayling, the adjutant-general of the State, has charge of all the funds and property appertaining to the National Guard. He attends personally to all issues of arms, equipments, clothing, ammunition, tents, and camp equipage. The storage and care of all this public property is supervised by him, and the State arsenal and store-house on the camp ground is kept in excellent condition. The issues of public property are made by General Ayling to the brigade and regimental quartermasters upon proper receipts, and at the close of the camping season the property is returned to the arsenal and the receipts canceled. General Ayling is, therefore, practically quartermaster general, commissary general, chief of ordnance, and paymaster general.

INSPECTOR GENERAL'S DEPARTMENT.

Maj. Gen. Elbert Wheeler, the inspector-general of the State, was present during the encampment and inspected the whole command. He was constantly engaged in the instruction of the officers in their duties, and the guards and sentinels received his unremitting attention. Maj. F. W. Russell, the brigade inspector, was in camp for three or four days, and assisted General Wheeler in the instruction of the various organizations.

MEDICAL DEPARTMENT.

Lieut. Col. George Cook, the medical director of the brigade, had charge of the field hospital, the surgeons and assistant surgeons of the regiments making daily reports to him. The medical department was well organized, careful preparations having been made for the proper treatment of the sick. The supply of medicines, etc., was ample. The morning reports, however, showed that there was no sickness in the command, and I believe there was only one man for a short time in the hospital during the seven days of camp. Colonel Cook made several daily inspections of the camp; the sinks, kitchens, tents, company streets, and grounds receiving his constant attention. The police of the camp was very good, indeed, and to Colonel Cook's care and vigilance this was in great part due.

The system followed by the staff departments is good, and very well adapted for placing the force in immediate condition for active service.

The troops were supplied with rations by hired caterers. The food was good and substantial, and well prepared.

TARGET PRACTICE.

There was no target practice during the encampment. * * *

INSTRUCTION.

There were three drills daily, which, with guard mounting and dress parade, kept the troops busily employed from reveille until retreat. The good result of this constant and systematic instruction was clearly apparent before the close of the encampment. When the troops arrived in camp it could easily be seen that there were a number of recruits in the ranks. A few of these men in a company detracts from its steadiness and military appearance. In consequence of this the guard mountings and dress parades on the first, second, and third days were not very good, but it was astonishing to observe how rapidly they advanced in steadiness, and how well and easily the ranks were dressed during the last days of the season.

I was very much pleased to see that more than one-half of the drills were devoted to skirmishing. The skirmish drills were, as a rule, very well conducted. I noticed that at company skirmish drills the colonels of regiments were present on the ground superintending the work and instructing the company officers and file-closers. The only fault to be found was that in some of the companies the men were permitted to talk to each other. The companies had evidently not been fully taught that, while at drill, standing at attention, or "parade rest," there should be absolute silence in the ranks; otherwise, the commands of the officers and the instruction sought to be given will be unheeded by the men.

DISCIPLINE.

As usual with the New Hampshire troops, the discipline was very good. The prison-room at the guard-house was empty. The men were orderly and obedient, and

there was no drinking of whisky or beer. Absolute quiet prevailed in camp between taps and reveille. Military courtesy was well observed. Police duty was well attended to, the result being a remarkably clean camp.

Owing to the number of recruits in the ranks, guard duty was not at first so well performed as it should have been. Some of the officers, sergeants, and corporals had never been on guard before. "Slouchy" sentinels and uninstructed non-commissioned officers were occasionally to be seen. The majority of the men on guard, however, particularly on the last days, were attentive to their duties, and gave evidence of the careful instruction they had received.

GENERAL REMARKS.

The military appearance of the regiments of infantry was very good, a great improvement over last year being quite manifest. A very great improvement from day to day was visible. The officers and men worked with a will, and everything was running quite smoothly on the last day. The stated roll-calls were well attended, and all the formations were conducted in a strictly military manner.

Company A, cavalry, was in excellent shape, well mounted, well drilled, and well equipped. This company marched 45 miles, from Peterborough to Concord, in about twenty-one hours, and arrived at the camp at 10 o'clock p. m. on the 9th. This long march was so well conducted by Captain Smith that neither horses nor men suffered in the least, and the company was on drill the next morning looking none the worse for the long and fatiguing march. The company left camp on the evening of the 14th on its return march to Peterborough.

The light battery, commanded by Capt. S. S. Piper, was, I think, in even better condition this year than when I made my report of last year. In discipline, drill, application, and energy it is a first-class organization. I was astonished to find that such excellent teams of artillery horses could be found, and still more astonished to see that the drivers were skillful in the handling of the teams, and that they never mistook the trumpet signals. This organization also marched to camp from Manchester, a distance of about 18 miles. There were no sore shoulders or sore backs among the artillery or cavalry horses.

A new and commodious stable has been recently erected upon the camp ground. It has stalls for sixty or seventy horses.

Cols. G. M. L. Lane, E. J. Copp, and J. N. Patterson command the First, Second, and Third Regiments, respectively. They have good field and staff officers, and their regiments reflect credit upon them.

The governor of the State was present, with the exception of one day, during the encampment. His staff officers were also present. He was constantly to be seen riding about witnessing the drills and evolutions. He reviewed the brigade and was present at all the dress parades. He was, I think, deeply interested, and seemed to be well pleased with the soldierly bearing and conduct of the troops. I have no doubt that the officers and men were encouraged by his presence, and were glad of the interest taken in their exercises by the commander-in-chief.

Brig. Gen. Daniel M. White commanded the camp of instruction. He was assisted by the same staff officers he had last year. It is a most excellent staff, every officer belonging to it having a thorough knowledge of his duties.

I am very much pleased to be able to report that such good progress was made by the troops during the encampment. New Hampshire should be proud of its troops. I know the governor is.

In conclusion, I take great pleasure in tendering my sincere thanks to Governor Sawyer and staff and General White and staff for the courtesy and kindness extended to me during my official visit to the State camp.

I am, general, very respectfully, your obedient servant,

R. H. JACKSON,

Major, Fifth Artillery, Brevet Brigadier-General, U. S. Army.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

FORT MYER, VA., July 30, 1888.

GENERAL: Complying with paragraph 4, Special Orders No. 160, current series, from your office, I made an inspection of the National Guard of the State of Delaware, and I have the honor to render the following report:

I reached Wilmington, Del., on the night of July 16, and accompanied the troops to their encampment the following morning. I remained in camp during its entire continuance, and returned with the troops as far as Wilmington, and was present at the review before the mayor and council of that city on the 24th.

Every facility for observation was afforded me, and I saw every detail of their camp and was a witness to the progress made.

ORGANIZATION.

The National Guard of the State consists of the staff of the governor, one adjutant-general (with rank of brigadier-general), one quartermaster-general (brigadier-general), and one inspector-general (brigadier-general), each with an assistant with the rank of lieutenant-colonel; one judge-advocate-general (with rank of colonel); and an inspector of rifle practice (with rank of lieutenant-colonel). There is also a quartermaster (with rank of colonel) for each of the three counties, and the governor has three aids (colonels), which he also selects from separate counties.

The line consists of nine companies of infantry and one troop of cavalry. * * * The cavalry troop is equipped and armed as cavalry, but not mounted. The nine companies of infantry form a regiment, organized as is a regiment in the United States service. * * *

EQUIPMENT.

I made a thorough inspection of the equipment, and find that it conforms, in kind, to the U. S. Army Regulations. The arms are the regulation Springfield arms; in several of the companies they are of the very latest model, with the new sights. In all the companies they were serviceable and in good condition. The tents in use were new and excellent. The knapsacks, belts, cartridge-boxes, etc., were Government pattern and good. Several of the companies were provided with comfortable cots, and all seemed to have an abundance of blankets for summer camp; but I learn that these were all private property. Tentage was not in the hands of the companies, but kept in charge by the quartermaster-general, and pitched and taken down under his direction. There was no provision in any of the companies for messing, or for separate existence away from their homes. Very few of the companies had even axes, spades, shovels, or buckets on their property list; and in this regard their equipment was very deficient.

INSTRUCTION.

On their arrival in camp the average of instruction was rather low. This could be accounted for by the fact that several of the companies had only been in existence about a year. Six of the ten came from towns of less than 3,000 inhabitants, in each of which but a single company could be raised, and where battalion drills were impossible and the stimulus of rivalry was absent.

All seemed zealous for improvement, and the colonel and his adjutant bent their entire and intelligent efforts to correct the defects, and their success was great. I met and mingled with the officers of all grades, and I found them intelligent and anxious to learn, and I have never seen so great improvement in a body of men in so short a time. All the details of the formal ceremonies, the movements of the drills, and the duties of camp and guard were performed with commendable accuracy at the end of the encampment.

DISCIPLINE.

The discipline seemed good as a rule. There was great familiarity between officers and men, in most cases; but that was to be expected, in fact, can hardly be avoided, among troops raised as these are. I saw no cases of serious lapses of discipline, and some cases of remarkably good discipline came under my notice.

This was the second encampment ever held in the State, and, with this very limited practice, the condition of the command must be considered as excellent. Of the ten companies five had no target practice whatever within the past year; not a single one of them had any skirmishing, and 200 yards was the greatest range used. Of the five companies that had target practice only one kept proper record, and no company fired over 1,000 rounds in the year. There was a match in camp at 100 yards only; each company sent a team of five men, and they fired ten shots each. The result was creditable, considering the amount of practice had.

The supply departments are not organized so that they could quickly place the force in condition for active service. The troops seemed well fed, but it was done by contract, and the department was without resources for emergencies. I think it would be a good experiment to issue to at least one company a full set of field tentage and equipment, and let it make a short march and perform within itself all the incident duties. This would at least emphasize their weakness, if it did not suggest a remedy.

One week does not seem long enough in which to derive full benefit of such a camp, and I would suggest an extension to ten days at least.

The camp ground was beautifully selected, and for its purpose has no superior in the State. The drainage was perfect, and with a careful adjustment of the lines the

area will prove sufficient. There was very little sickness in camp, and the hospital preparations were, I believe, abundant and perfect.

The strength of the regiment was—

	Present	Absent.	Total present and absent
Officers	37	3	40
Enlisted men	378	105	483
Band	39	1	40
Total	454	109	563

Col. Samuel M. Wood, commanding the regiment, and his adjutant, Lieut. J. H. Harman, jr., were thoroughly efficient and zealous in the performance of their duties, and the result of their labors was very manifest. With very few exceptions, I found all the officers devoted to their duties and performing them conscientiously and with ability. The staff of the governor is comprised of young men, active and full of enthusiasm and devoted to their work.

For much of the progress made by the National Guard of Delaware within the last year the State is indebted to the intelligent and tireless effort of the chief of staff, Brig. Gen. Richard R. Kenney, under whom it may soon hope to become the equal, in point of efficiency, to any in the country.

I am indebted to all in the camp, from general to private, for the extreme of courtesy and hospitality.

Yours, very respectfully,

GEORGE S. ANDERSON,
Captain, Sixth Cavalry.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

SAINT PAUL, MINN., July 18, 1888.

GENERAL: Referring to Special Orders No. 111, paragraph 7, current series, from the Headquarters of the Army, Adjutant-General's Office, I have the honor to report that I arrived at Lake City, Minn., the place of holding the encampment of the Minnesota National Guard, on the 19th day of June last, and remained until July 18.

The State camp is located about 1 mile southeast of the village of Lake City, Minn. The location is an admirable one and picturesque. It fronts on Lake Pepin and has to the rear a high bluff covered with a fine growth of timber—a pleasant retreat for the men from the heat and glare of the tents under a midday sun. The soil is light and porous, dries rapidly after a rain, and is well drained, having a natural and easy slope to the lake. Water is supplied from drive wells located within the limits of the camp; it is of good quality. The camp and drill ground covers 58 acres and is rectangular in form, the length on the lake front being about three times the depth. Wall-tents, 9 by 9 feet, floored, are used to shelter officers and men.

The rifle range, located next the camp to the southeast, contains 48 acres. It is provided with everything in the way of mechanical apparatus and supplies to make it complete in all its details. The "Wingate" target is used; 500 yards is the greatest firing distance. The State allowance of ammunition to each officer and soldier is fifty rounds; forty to be used in firing at known distances, five in skirmishing, and five in volley firing; all to be expended on the State range. The range has been fitted up and is in charge of Captain Skinner, brigade inspector of rifle practice—an enthusiast on that subject who, to a perfect understanding of what is required of him in the proper performance of his duties, has the very valuable qualifications of being an expert marksman and a good coach.

The grounds occupied by the State at Lake City have been leased for thirty years. This is the first year of their occupancy by the State. Heretofore its several regiments have encamped separately and widely apart.

Several buildings of a permanent character have been erected; others are in contemplation. It is hoped that in a few years the camping ground of the

Minnesota National Guard will be in condition to invite favorable comparison with any in the country.

The staff departments of supply are not organized. The chiefs of different administrative departments of the staff have been appointed; the officers are merely honorary, there being nothing for the officers to do. They are, no doubt, men of function; but, in the absence of an occasion calling for the exercise of their administrative duties, they are called out only upon occasions of display and ceremony. The adjutant-general of the State attends to everything that is required or necessary to be done.

The appropriation of \$30,000 by the last legislature for use of the National Guard was not sufficient to permit the purchase of certain articles of camp and garrison equipage, of which it is very much in need. The per diem to officers and men in camp; the yearly allowance to companies, determined by the general muster and inspection in the month of May; the transportation of the troops to and from the camp-ground; the hire of cavalry and artillery horses for the encampment, etc., are all charges against the appropriation.

The Second Regiment, the first to arrive, reached the camp on the 20th day of June and remained until June 29. The companies of this regiment came from as many different towns as there are companies. The only opportunity this regiment has for battalion drill and instruction is that afforded by the few days it remains in the State camp. This is the sixth of its annual encampments. The regiment is commanded by Colonel Bobleter—an energetic and hard-working officer, familiar with the tactics and constant in his attention to the wants of his regiment.

The battalion skirmish drill of this regiment was excellent. Several of the company deployments were carelessly made; but, take it all in all, this part of the drill of the Second Regiment was nicely done. Colonel Bobleter handled his skirmish line in a manner that indicated his perfect understanding of its proper use. The battalion drill was not good; the alignments as a rule were bad; many inexcusable mistakes were made and persisted in. The placing of markers to indicate the place and alignment of the leading division in forming close column and, in making a general alignment, the marking of the alignment in the right wing by the left guides of the companies faced to the right instead of right guides faced to the left, were the most noticeable errors.

In one company (the tenth in line) the officer commanding it frequently dressed his company, in line, on his first sergeant, who took place in the line of battle on the left of his captain instead of retiring to the rear, opposite his interval. Take it all together, I think the battalion drill of this regiment ought to have been better, and, no doubt, would have been had the company commanders come to the drill ground better informed as to their duties. More attention should have been paid by them to minor, but important, details of execution. The indifference, or dullness of comprehension, of several of the company commanders was a constant source of irritation and annoyance to Colonel Bobleter. His explanations, when he made them, were clear and close to the phraseology of the tactics; yet the execution of the more simple movements, such as ployments and deployments, were awkwardly, confusingly, and frequently erroneously executed.

Officers' school was had in an informal way every week-day afternoon.

The parades and guard mountings were well done. In reviews, camp colors were not placed to mark the different changes of direction. This omission gave the flank of the column on the side of the guide a wabby appearance; the leading right guide having no point in his rear front on which to direct his march, his variation from a direct advance affected the direction of the march of the guides in his rear in their efforts to march in his trace.

The guard duty of the regiment was not well done. It did not receive that attention so important a duty demands. After the guard had been mounted very little attention was given it; there were exceptions, but the occasional observance of proper methods made their non-observance more noticeable. The turning out of the guard for officers entitled to that recognition was done so irregularly that it had better have been left undone.

The police of the interior of the camp was good. Police parties to clean up the camp were frequent. The police of the grounds outside the line of sentinels was not good. The men's sinks were not kept in good police, and became offensive. The regimental surgeon should have insisted upon greater attention to keeping the sinks clean, by washing the floors and seats occasionally, and a more frequent disinfection of the vaults.

An officer did not as a rule attend company roll-call; it was ordered, but the order appeared to be more honored in the breach than the observance.

The men were orderly and respectful; I observed no disorders or riotous conduct in the camp. They appeared interested in learning their duties and were prompt in

obeying orders. They were particularly careful, I think, to salute me, though I observed their officers did not, as a rule, come in for that attention. I saw no instance where men were taken to task for not doing so, except by Colonel Bobleter. I therefore conclude that not being required of them, the men were blameless in omitting it.

The hospital service of the regiment was not organized. The companies kept no sick books; neither was there any official record kept by the surgeon in charge of prescription cases or treatment. There was no dispensary. What remedies were prescribed were provided by the regimental medical officers, or the patient had his prescription put up in town. The State makes no allowance for this service.

Target practice in this regiment is had only in the State camp.

This regiment has blanket-bags and thirteen canteens to each company; no haversacks. It is not prepared to take the field in the sense of being provided with a proper equipment.

The following shows the result of my formal inspection of the Second Regiment Minnesota Infantry:

Date of inspection, June 24, 1888; arms, Springfield rifle musket, caliber .45; the men wearing helmets, dress coats, black belts, Hoffman cartridge-box, and bayonet scabbard.

The inspection was preceded by a review. I have before mentioned the omission of camp colors.

Company A: Condition of arms, fair; a number of rusty rifles in this company; accouterments, in bad order—belts not blacked, plates not clean; clothing, not brushed; shoes, as a rule, not cleaned; company street and tents, in good police; * * * military appearance, fair.

Company B: Condition of arms, excellent; belts blacked, plates polished; clothing, clean; company street and tents, in good police; mess-tent and kitchen, in good police; military appearance, excellent.

Company C: Condition of arms, good; condition of belts and plates, generally good; two rusty rifles in this company spoiled the otherwise good effect; clothing, clean; company street and tents, in good police; mess-tent and kitchen, in good police; military appearance, good.

Company D: Condition of arms, bad, spotted with rust; great carelessness in caring for the arms of this company; belts and plates, not clean; clothing, not clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance of this company, not good.

Company E: Condition of arms, generally good; belts and plates, not in good order, not blacked or brightened; clothing, clean; company street and tents, in good police; police of mess-tent and kitchen, good; military appearance, fair.

Company F: Condition of arms, fair; belts and plates not in good order, not blacked or brightened; clothing, clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, fair.

Company G: Condition of arms, good; belts and plates, not in good order, not blacked or cleaned; clothing, clean; company street and tents, in good police; police of mess-kitchen, good; military appearance, good, except as to belts and plates.

Company H: Condition of arms, bad, rusted, no apparent attention given by officers or men to their proper care; belts and plates, in bad order, not blackened or brightened; clothing, not neat or brushed; the use of the shoe-brush not popular in this company; company street and tents, in fair police; the mess-tent and kitchen, not in good police; military appearance, not good.

Company I: Condition of arms, fair; belts and plates, in fair condition; clothing, clean; police of company street and tents, good; police of mess-tent and kitchen, fair; military appearance, fair.

Company K: Condition of arms, generally good; belts, not blacked; plates, not clean; clothing, clean; company street and tents, in good police; police of mess-tent and kitchen, good; military appearance, good, except the belts and plates.

For the reasons stated, I do not think the military appearance of the Second Regiment was more than fairly good. The defects noted are very easy of correction. I have no doubt that, if attention is called to them, company commanders will be more careful of the condition of their companies at future inspections. * * *

At 8.30 a. m. on the 27th of June I inspected the battery and troop of cavalry. In the dress of the battery men, the cleanliness of their arms and accouterments, guns, carriages, and harness, I found the battery in excellent condition. * * *

The drill of the battery was creditable, taking into consideration the fact that it had been horsed but a few days, and that the only opportunity its commander had for instructing his drivers was in the three days' march from Saint Paul, Minn., to the camp grounds (56 miles); it was as good as could be expected, using dray-horses, hired for this occasion, several of them vicious beasts almost beyond control.

The amount allowed by the State for the hire of artillery and cavalry horses (\$300 to each) is inadequate. The deficiency is made up by the contributions of officers and men. The artillery harness is very old and rotten—not safe on the road. * * *

The military appearance of the troop of cavalry was good. The arms were clean and free from rust, and evidenced an attention in caring for them very much to the credit of the men. The clothing and accouterments of the men were clean and fitted well, the accouterments being carefully blacked; horse furniture clean. The duties of the stable guards, battery and troop, appeared to be properly performed.

Lieutenant-Colonel Hawley, assistant adjutant-general, had command of the artillery and cavalry camp. To his experience as an artillery officer (Fourth Minnesota Battery) in the war of the rebellion, his attention to small but important details, his tact as a disciplinarian in handling national guardsmen, and to his advice and assistance in preparing the battery and troop of cavalry for inspection, is due a large measure of credit for the soldierly appearance of his command.

The Third Regiment of Infantry (reserve) arrived in camp July 3 and remained until July 11. This regiment, made up of formerly independent companies, is commanded by Col. F. P. Wright, of Saint Paul, Minn.

This regiment, recently organized, has as yet no legislative recognition. It is hoped that at its next session the legislature will amend the State law, which now permits but two regiments of infantry, to include the Third. The regiment receives no aid from the State; the officers and men were in the camp at their own expense. The companies of this regiment came together this year for the first time, no two from the same town, so that the few days it remained in camp may be said to have been taken up in organization and in instruction in the rudimentary battalion formation and movements. While many crudities in battalion formations and ceremonies were noticeable for the first day or two of its camp life, at its close the six companies of the Third Regiment present had arrived at a point in its progress to that high standard of efficiency to which Colonel Wright desires to lead it, which, if continued, will, I am sure, at the conclusion of the next annual encampment place the Third Regiment second to none in the State in discipline and military appearance. I am of this opinion for the reason that Colonel Wright, in instructing his regiment, has insisted upon cleanliness and a thorough, formal, and precise performance of the duties of guards and sentinels as the two most important points for which he desires to have his regiment known.

While great and studied precision in the execution of the manual of arms, battalion and company movements, may be attractive to the eye and evidence an unusual attention to that portion of a soldier's instruction, I agree with Colonel Wright that cleanliness of person, arms, accouterments, and camp are of the first importance as affecting the health, comfort, and soldierly appearance of his command.

The battalion drills of this regiment were fairly done; a number of the smaller details of execution were omitted. In a regiment more accustomed to exercise on the drill ground such omissions would be inexcusable. The dress parades, reviews, and guard mountings were fairly well executed. The dress parade of June 7 was almost without an error.

The very satisfactory improvement in the drill and military appearance of this regiment at the end of its six days' encampment is very creditable to both officers and men, and, if continued, assures a fine future for the regiment. Officers' school was had daily. A commissioned officer was present at company roll-calls. The manner in which the regiment performed its guard duties was exceptionally good. The men on post were vigilant, carried their arms properly, were well informed of their duties, and prompt in executing them. * * * They saluted with spirit. As a rule the guard was turned out in good form. I visited, with Colonel Wright, the sentinels on post during the night. They challenged promptly, properly, and had an intelligent understanding of their duties. The Third Regiment has good reason to feel proud of the very correct way in which it does its guard duty.

The sanitary condition of the camp was in charge of Dr. McKinstry, regimental surgeon. The camp was kept neat and clean; the men's sinks were kept in good police, were washed frequently and vaults disinfected. Dr. McKinstry deserves mention for his constant attention to this very important part of camp regulation.

The hospital service of this regiment is in the same condition as that of the Second Regiment in the matter of official records of the sick. Dr. McKinstry had provided, before coming to the camp, such remedies as his experience suggested might be necessary. The men of the Third Regiment were very attentive in saluting their officers. Bright and impressionable young men, they need only proper handling to make the Third Regiment an ornament to the military power of the State. Target practice was had at every spare moment. The improvement in shooting was very satisfactory. The allowance of ammunition is so small that instruction in this exercise can not be made as complete as is desired.

The following shows the result of my formal inspection of the Third Regiment:

Date of inspection, July 8, 1888, 8.30 a. m.; arms, Companies B and K, Springfield breech-loading rifle-musket, caliber .45, and Companies D, E, F, and H, Springfield breech-loading rifle-musket, caliber .50; bright barrels (M. 1869); the battalion pa-

graded with forage-caps, blouses, Hoffman boxes, bayonet-scabbards, and black belts; four of the companies had the old United States belt-plate.

Company B: Condition of arms, excellent; belts blacked, plates cleaned; clothing, neat and clean; company street and tents, in good police; military appearance, excellent.

Company D: Condition of arms, fair; belts and plates in bad order, not cleaned, blacked, or brightened; clothing, clean; company street and tents, in good police; military appearance, fair. This is the best drilled and best appearing company on the drill-ground; it is regretted that more attention has not been given to preparing it for this inspection.

Company E: Condition of arms, fair; belts and plates, in fair condition; clothing, clean; company street and tents, in good police; a few rusted rifles in this company reduced its average; military appearance, good.

Company F: Condition of arms, fair; belts and plates, not blacked or brightened; clothing, clean; company street and tents, in good police; military appearance, fair.

Company H: Condition of arms, fair; a few rusted rifles in this company reduced its average; belts and plates, generally in good order; clothing, clean; company street and tents, in good police; military appearance, good.

Company K: Condition of arms, excellent; the bad condition of the belts and plates of this company places it in military appearance below Company B; clothing, clean; company street and tents, in good police; military appearance, good.

The Third Regiment was subsisted by contract; the companies had no mess-tent or mess-outfit. This regiment has no field equipment.

The First Regiment Minnesota National Guard arrived in camp July 9 and remained until July 19. The fine military appearance of this regiment; the precise, formal, and correct manner in which it does the tactics of ceremony; the correct manner in which it executes battalion movements; and the high state of discipline and efficiency for which it is justly celebrated, is a deserved compliment to the energy, industry, and painstaking of its very efficient commander, Colonel Bend, of Saint Paul, Minn.

I can sum up what I have to say of this regiment in a few words: I have seldom seen a better parade, review, or guard mounting. I think this regiment has reached a point in its training beyond which it can not expect to go. I do not mean to convey the idea that it is perfect, but that it is as near so as it is likely to get. It will do well if it can remain where it is. I would suggest that officers in making alignments keep their swords at a "carry." It looks badly to indicate the alignments with the sword; there is no authority in tactics for it. I have observed it to be a common practice in the militia; it is a very awkward and bad appearing one.

The guard duty was not well done. I regret to have to remark that the sentinels on post were not as well instructed as they ought to have been. More attention will be given to this important part of a soldier's duty in future armory instruction.

Officers' school was had daily. A commissioned officer was present at company roll-calls.

The men of this regiment were attentive in saluting, respectful, quiet, and orderly. They were prompt and cheerful in their obedience to superior authority.

Target practice was given a large share of the time of the regiment. I am informed by the regimental inspector of rifle practice (a very competent officer) that the men of the regiment are much interested in this military exercise, and have made "very gratifying improvement in their shooting." I have remarked in another place that very many expert marksmen can be found in the Minnesota National Guard.

This regiment has no field equipment, except blanket-bags, and is not prepared to take the field in the sense of having a proper field equipment. Such a thing as a haversack is unknown in the National Guard of Minnesota.

The following shows the result of my formal inspection of the First Regiment Minnesota National Guard:

Date of inspection, July 15, 1888, 7 a. m.; arms, Springfield breech-loading rifle-muskets, caliber, .45; the battalion paraded with dress coats, helmets, Hoffman boxes, black belts, and bayonet-scabbards.

Company A: Condition of arms, would have been excellent but for four rusted rifles; belts and plates, in excellent condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, excellent; military appearance, excellent but for the bad condition of the four rifles.

Company B: Condition of arms, good; belts and plates in good condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, good.

Company C: Condition of arms, good; belts and plates, in good condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, fair—knives and forks in daily use not clean; military appearance, good.

Company D: Condition of arms, excellent but for five rusted rifles; belts and plates, in excellent condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, excellent but for bad condition of five rifles.

Company E: Condition of arms, good but for bad order of three rifles; belts and plates, in good order; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, good.

Company F: Condition of arms, good; belts and plates, in good order; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, good.

Company G: Condition of arms, good; belts and plates, in good order; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, good.

Company H: Condition of arms, good; belts and plates, in good condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, not up to the regimental average; military appearance, good.

Company I: Condition of arms, good; belts and plates, in good order; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, not good; military appearance, good.

Company K: Condition of arms, excellent; belts and plates, in excellent condition; clothing, neat and clean; police of company street and tents, good; police of mess-tent and kitchen, good; military appearance, excellent.

I desire to suggest the advisability of disbanding the so-called cavalry troop. It seems to me to be perfectly absurd to have as a part of the State forces a cavalry company which appears but seven days in three hundred and sixty-five as a mounted body, and never has a mounted drill except in the State camp.

I desire to suggest that the allowance of ammunition for skirmishing be increased by using on the skirmish line that now expended in volley firing; and that men be not permitted to practice on the skirmish line until they have had some instruction in firing at known distances.

I desire to express through the medium of this report my sincere and hearty thanks to the gentlemen of the Minnesota National Guard for many kindnesses and attentions. The great number prohibits my mentioning them all by name. To General Seeley I am more especially indebted for valuable aid in the performance of my appointed duties and for social attentions. To Colonel Bend, First Regiment; Colonel Bobleter, Second Regiment; and Colonel Wright, third Regiment, I am indebted for polite and thoughtful attentions while in their camp.

Respectfully submitted.

JNO. H. PATTERSON,
Captain, Twentieth Infantry, Special Inspector.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

FORT WAYNE, DETROIT, MICH., July 31, 1888.

GENERAL: In accordance with paragraph 7, Special Orders No. 153, current series-Headquarters of the Army, and letter of instruction dated July 3, 1888, from War Department, Adjutant-General's Office, I have the honor to report that I proceeded to the encampment of the Michigan State troops on Mackinac Island, Michigan, to carry out my orders, arriving about noon the 11th instant.

I traveled with the Fourth Regiment Michigan State troops from Detroit to Mackinac Island. It presented a very creditable appearance as it marched from the landing (about one-half mile) to the camp, which had been laid out and tents pitched. The Second Regiment had already arrived and was in camp.

On reaching camp I found Governor Luce and staff, and Brigadier-General Smith, commanding, and staff, already settled in same, and from them received a hearty welcome; also tents, on line with those of the governor's staff, which had been pitched for me, and which I occupied till the departure of troops on 24th instant.

The site selected is an unevenly-sloping hill-side on southwest part of the island, overlooking the lake, and about midway between Fort Mackinac and Plank's Grand Hotel, having two slopes or slightly inclined terraces, on each of which a regiment encamped; tents for the governor and his staff, and the brigadier-general, commanding, and his staff, were located about midway between them. There was a fine, cool spring at lower edge of upper camp, from which flowed excellent water (ample for drinking and bathing purposes) through and beyond the lower camp; that for cooking and other purposes was hauled from the lake; it, too, was good. On a line

with and a short distance east of the staff was the brigade hospital. (Band and two companies Twenty-third U. S. Infantry, Captain Randall, commanding, also in camp.)

Though the camp was contracted and on uneven surface, yet the camp conformed nearly to those usually found in active service, and gave all an idea of making best of situation; hence important and instructive.

The camp was named "Camp Luce," in honor of his excellency Governor Cyrus G. Luce. The troops on their arrival in camp were mustered by the inspector-general and his assistants.

* * * The following is a concise brief of the number of officers and men of the brigade present on the first and last day of each period of the encampment:

The command consisted of—

Brig. Gen. I. C. Smith and staff; aggregate present, 7.

July 12.—Second Regiment, Col. E. M. Irish: Ten companies; aggregate present, 35 officers and 513 men.

Fourth Regiment, Col. E. Robinson: Eight companies; aggregate present, 34 officers and 432 men.

July 16.—Second Regiment: Ten companies; aggregate present, 35 officers and 515 men.

Fourth Regiment: Eight companies; aggregate present, 30 officers and 404 men.

July 19.—First Regiment, Col. E. W. Bowen: Eight companies; aggregate present, 31 officers and 428 men.

Third Regiment, Col. C. S. Brown: Ten companies; aggregate present, 35 officers and 518 men.

July 23.—First Regiment: Eight companies; aggregate present, 31 officers and 417 men.

Third Regiment: Ten companies; aggregate present, 35 officers and 505 men.

Camp Luce was really inaugurated by the Second and Fourth Regiments at reveille (4.45 a. m.), 12th instant; immediately after which was to be seen then and each succeeding day police of camp, "setting up," squad and company drills without arms, followed by battalion and battalion skirmish drills, taking up nearly all the forenoon; then dinner, which was followed by similar battalion drills and regimental parades. Thus the Second and Fourth Regiments were occupied, except one brigade drill and dress-parade and brigade inspection. The last day, 17th instant, a review of brigade by the governor, and sham fight in the afternoon by Second and Fourth Regiments and four companies Twenty-third U. S. Infantry, which ended the five days' instruction in camp of Second and Fourth Regiments. The Fourth Regiment left that night for home and Second Regiment on the morning of the 18th, after a very successful camp of instruction. I observed an improvement in these two regiments in their first guard mounting and parade over those of last year, and a very visible improvement in all exercises and ceremonies at the close of their five days, when all seemed more at ease in their soldierly training and to take a conscious pride in the knowledge of a better understanding of all their duties. Thus ended the first period of the encampment.

The First and Third Regiments came into Camp Luce the afternoon of the 18th instant; were mustered same as and occupied immediately the tents vacated by the Second and Fourth Regiments. Their tour of instruction and camp duties commenced at reveille (4.45 a. m.), 19th instant, and they, too, were early at their military work, like the two regiments preceding them. My remarks as to first guard mounting and parade applies equally to them. Their drills, parade, etc., were the same, except they had no skirmish drill, which is to be regretted. The improvement in all exercises and ceremonies was very observable at their close of camp service, and they also were more at ease in the execution of all duties.

The last day, 23d instant, the First and Third Regiments and battalion (band and four companies, under command of Captain Randall) Twenty-third U. S. Infantry, were reviewed by Governor Luce and Governor Oglesby of Illinois. In the afternoon of that day the encampment ended with a sham fight, in which the First and Third Regiments and battalion of four companies Twenty-third U. S. Infantry took part, after which, and that night, most of the troops left for home, and Camp Luce ceased to exist the 24th instant.

Both reviews, that by the Second and Fourth Regiments, on 17th, and that by the First and Third, on 23d instant, were very creditable indeed to all concerned, and elicited high praise from the vast assembly who witnessed them, and very justly so.

The uniform is good, closely resembling that of the U. S. Army, and is well adapted for field service; 1,050 overcoats on hand—an increase of 450 over last year. There should be enough, at least, to furnish one to each enlisted man.

Armed with Springfield rifle, caliber .45, latest pattern, in good condition, and ready for service. Cartridge-boxes (McKeever) old, yet in good condition. Waist-belts old and worn, but serviceable; new ones again recommended. Gun-slings old and worn, too short; new ones should be issued. Knapsacks good. No canteens or haversacks

in the brigade, nor any on hand for issue; needed badly; are necessary for active service; each man should be supplied with them. I deem them more important than the knapsack.

No target practice this year; no suitable range could be obtained, is the reason given. Would recommend that renewed efforts be made to obtain the same, as instruction in this important branch needs no comment.

The camp equipage is ample for present force and in good condition—400 wall-tents, 9 by 9, for men; 140, 9 by 12, for officers; 8, 11 by 14; 8, 12 by 18; and 44, 16 by 32; total, 600, all wall-tents; 6 flies, 11 by 14, and 140, 9 by 12. An abundance of tents were pitched for the use and comfort of troops of two regiments, all well floored; four men to a tent, some few had six. "Excelsior" mattresses (an improvement on the straw of last year). All the companies had large mess-tents, 16 by 32, with wooden benches and tables; also balloon kitchens and sinks; latter with deep pit; earth and lime used as disinfectants; no odor, and easily kept clean. The quartermaster-general has charge of this equipage and all public property or stores not in the immediate use of troops. There being no chief of ordnance, nor commissary-general of subsistence, the quartermaster-general performs the duties pertaining to these departments in addition to those of his own, and all efficiently.

The system followed by staff department is similar to that in U. S. Army.

The numerous railways and water-routes running through and around the State afford ready means of consolidating the forces at any point within or out of the State.

The brigade hospital was well established for care of sick, with all that was necessary for same. As sickness was very light, and as no one required treatment in hospital, the health of the command needs no comment.

The police, drainage, and sanitary conditions of camp were excellent.

While the whole camp was commanded and maneuvers directed by the brigade commander, yet each regiment formed a camp, as it were, by itself, acting independent of the other, and having its own guard, guard mounting, drills, and parades, under the immediate command of its colonel, assisted by his field officers, who were present at all times and occasions, ever watchful and looking after the interests of all concerned. In fact, all, from highest down, manifested a deep interest in each of the various duties.

Orders from brigade headquarters prescribed the daily routine and duties of the camp, and the brigadier-general and his staff were to be seen everywhere, having an eye to the condition, drills, etc., of his command.

The period of the encampment (five days) was, as I said last year, too short; if possible, it should be doubled.

Each company has a caterer and cooks, who supply and serve the meals, for which each man turns in 75 cents allowed for rations, or so much of it as may be necessary. Most of them live for less than that, and live very well.

The stated calls were well conducted, and the discipline of the command was excellent. I was strongly impressed with the general order and quiet of camp at all times; after taps it would be hard to find a more quiet camp. All of which speaks well for the discipline of same.

The important duty of guard seemed to be the hardest to overcome; still, they did well, and improved daily. But the time (five days) was not sufficient to allow them to be fully instructed, as no man was on guard more than once, except in the Fourth Regiment, which had two guard mountings daily (12-hour tour), thus giving greater chance for instruction, the benefits of which were perceptible. It would have been well had the other regiments followed the same course. It would aid all concerned if the subject of guard and duties of sentinels were studied and practiced at home and in the armories of the different companies, and be a great advantage to both officers and men in their future encampments; and I strongly recommend same.

From close observation, I have no reason to recall anything in my report of last year, and even repeat that Michigan should be proud of her troops in camp this year, and do all in her power to encourage and foster the pride and spirit each and all, in his sphere, evinced in the performance of his duties.

The general appearance of the several regiments was excellent, each consisting of young, healthy, active, zealous, and intelligent men, capable of expansion. With such material, it would take but a short time to make soldiers of whom any one would be proud.

The general deportment of the troops, in and out of camp, was excellent.

The presence of the governor in camp, from the 11th to the 23d, inclusive, with the deep interest he displayed in all the duties and exercises, was very beneficial, and encouraged all to make the camp one of instruction, as intended; and it was a success. From early morning till almost dark exercises and ceremonies of one kind or another rapidly followed each other. The general effect of all was very good, and on the last day each regiment had made firm progress, laying a good foundation upon which to build the coming year.

Captain Randall, commanding battalion Twenty-third U. S. Infantry, was encamped very near the Michigan State troops, and joined in their ceremonies and

exercises. Their camp and presence were beneficial and instructive to both the State troops and themselves.

In conclusion, I take great pleasure in tendering hearty thanks to Governor Luce and staff, the military board, and Brigadier-General Smith and staff, for uniform courtesy and kindness extended to me; in fact, to all others whom it was my good fortune to meet in camp, and who were ever ready to afford me every assistance in the discharge of my duties, all of which were pleasant and instructive to myself.

Very respectfully, your obedient servant,

H. M. BLACK,
Colonel Twenty-third Infantry.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

FORT MONROE, VA., August 29, 1888.

SIR: I have the honor to report that, in compliance with Special Orders No. 160, as amended by Special Orders Nos. 167 and 171, current series, from Headquarters of the Army, I proceeded to Philadelphia, Pa., and reported to the governor of Pennsylvania on the 21st of July. On the afternoon of that day the governor and his staff, with Maj. Gen. John F. Hartranft and his staff, proceeded to the camp at Norristown, Pa. By invitation of the governor, I accompanied him.

On reaching the camp the governor received a well-rendered salute from the battery attached to the brigade, and he then made a tour of the camp, stopping at the headquarters of each organization.

The brigade consisted of the commands set forth in the following table, which shows its strength on the 25th of July, and gives what may be regarded as its average attendance during the encampment:

Organizations.	Present.						Absent.						Total present and absent.				
	For duty.					Sick.	With leave.	Without leave.	Total absent.								
	Field and staff.	Non-commissioned staff and band.	Company officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Aggregate.	Aggregate last report.
General, staff, and band.....	9	37			46									9	37	46	47
2d Regiment.....	8	5	27	543	583	10	1		11	1	11	36	569	605		605	
6th Regiment.....	10	4	23	413	450	5	1	14	15	1	29	34	451	485		485	
3d Regiment.....	6	5	20	368	399	1	4	20	17		37	27	414	441		441	
1st Regiment.....	8	5	28	509	550	1	9	24	1	10	1	34	557	595		595	
Battalion State Fencibles.....	5	5	11	222	243	2	1	6	4	1	10	17	239	256		257	
Gray Invincibles.....		2		58	60	2	1			1		3	60	63		63	
A Battery.....		4		75	79			1	3		4	4	79	83		83	
1st Troop.....		3		36	39		2	13		2	13	5	49	54		54	
Total.....	46	61	118	2,224	2,449	2	32	6	78	1	60	7	138	173	2,455	2,628	2,630

From the report above given, it will be noticed that 93 per cent. of the brigade was present.

This camp was pleasantly situated, about a mile from Norristown and near the bank of the Schuylkill River, which afforded ample facilities for bathing.

The camp was named in honor of Gen. Adam J. Slemmer, late of U. S. Army, and the brigade was commanded by Brig. Gen. George R. Snowden.

On the morning of Wednesday, July 25, the governor, with the division commander and their staffs, left camp in a special train for Mount Gretna, on the Cornwall and Lebanon Railroad, where the Third Brigade, commanded by Brig. Gen. J. P. S. Gobin,

was encamped. The governor was escorted to camp by the cavalry attached to the brigade and received with the usual honors, the command being formed in line of masses and the battery firing a well-rendered salute. This camp was named, in honor of the General of the Army, Camp Sheridan.

The following report shows the strength of the brigade on the 25th of July:

Organizations.	Present.					Absent.					Total present and absent.		
	For duty.					Sick.					With leave.		
	Without leave.					Total absent.					Without leave.		
	Field and staff.	Non-commissioned staff and band.	Company officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
General, staff, and band.....	10	35	...	...	45	...	...	...	...	10	35	45	45
13th Regiment...	9	5	24	396	434	6	1	15	11	26	34	433	467
9th Regiment...	10	3	19	405	437	2	2	15	2	17	31	427	458
8th Regiment...	10	6	29	517	562	3	1	3	14	1	17	40	583
4th Regiment...	9	5	24	425	463	...	...	...	...	33	430	463	463
12th Regiment...	9	4	24	424	461	2	...	4	2	6	33	436	469
C Battery.....	4	14	...	61	79	...	1	...	1	5	75	80	80
Governor's troop	4	14	...	42	60	...	3	...	1	4	63	64	64
Total.....	65	86	120	2,270	2,541	13	5	40	30	5	70	190	2,629

This brigade, as shown by the foregoing report, had 95.6 per cent. present, the Fourth Regiment having every officer and man with it.

Camp was broken on the morning of Saturday, July 28, and I returned to my post.

On the 11th of August I joined the staff of the governor in Philadelphia, Pa., and accompanied them to report to the governor at Cresson Springs, to which place he had preceded us. We arrived at the camp of the Second Brigade, on Conneaut Lake, in Crawford County, on the afternoon of Monday, the 13th. The cavalry troop escorted the governor to camp, where he was received with a salute from the battery and the usual honors, the brigade being formed in line of masses. The camp was named in honor of General E. O. C. Ord, late of the U. S. Army, and the brigade was commanded by Brig. Gen. John A. Wiley. The following report shows the strength of the command on the 14th of August:

Organizations.	Present.					Absent.					Total present and absent.		
	For duty.					Sick.					With leave.		
	Without leave.					Total absent.					Without leave.		
	Field and staff.	Non-commissioned staff and band.	Company officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
General, staff, and band.....	10	34	...	...	44	...	...	...	...	10	34	44	43
5th Regiment...	10	5	21	417	453	3	...	...	...	31	425	456	456
10th Regiment...	9	5	23	464	500	1	...	1	2	33	469	502	502
14th Regiment...	10	5	24	476	515	...	...	1	1	34	482	516	515
15th Regiment...	10	5	21	367	403	...	2	15	17	31	389	420	420
16th Regiment...	7	5	24	396	432	1	1	11	1	23	34	436	470
18th Regiment...	7	5	25	502	539	2	3	1	3	4	35	511	546
Battery B.....	...	5	...	75	80	...	...	...	...	5	75	80	80
Sheridan Troop	...	4	...	53	57	...	2	3	5	4	58	62	62
Total.....	63	64	146	2,750	3,023	4	4	18	3	43	7	61	2,879

The report above given shows that 97.3 per cent. of the command was present. The Fifth Regiment had every officer and man present, as did Battery B, and the Tenth Regiment had its entire enlisted strength present and but two officers absent.

CAMPS.

The governor and division commander remained throughout each encampment, exercising a general supervision, and giving their personal attention to all matters connected with the camp.

The camps of the different organizations were, with the exception of those in the Second Brigade, laid out practically as prescribed in the Regulations. A departure was made in this brigade in placing the kitchens and sinks of some of the regiments in rear of the line of officers' tents, and in others on the flank. The former method is not to be commended from any point of view.

The soil in the camps of the First and Third Brigades was well adapted for camping purposes, while that of the Second was on ground that quickly became muddy in wet weather, and remained so for some time.

The camps were supplied with excellent water by piping it from neighboring sources of supply.

Bathing facilities were afforded by the Schuylkill River and Conneaut Lake at the camps of the First and Second Brigades, while the Third was dependent on the ordinary water supply.

The men were in the new pattern of the common tent, with walls, and the officers had the wall-tent. The division headquarters had both hospital and wall tents. The State possesses a sufficient quantity of tentage to accommodate the entire division. It is all in excellent order. At each encampment details from the different organizations precede the commands to camp and pitch the tents under proper supervision. At the breaking up of camp the tents are left standing until thoroughly dry, when they are taken down, under the direction of the superintendent of the arsenal, and stored on racks in the arsenal at Harrisburg.

There was a want of uniformity in the furniture of the tents as well as in the bedding, each company being permitted to exercise its discretion in these matters. There were too many boxes, trunks, and valises in view. It was apparent to me that too much baggage and impediments generally were permitted. It would be well in future to restrict both officers and men to certain camp furniture, and to adopt a uniform bed-sack or mattress for all the commands it possible, and if not, that they should be uniform throughout each organization.

ORGANIZATION.

The National Guard of Pennsylvania consists of a division of three brigades, numbering 579 officers and 7,773 enlisted men, commanded by Maj. Gen. John F. Hartranft. The number and strength of the regiments in each brigade are set forth in the foregoing reports. The companies are unequally distributed throughout the State. The adjutant-general, in his annual report for 1887, states that twenty-three counties have no military organization, in thirty-nine counties there are sixty-one companies, and in the remaining five counties there are seventy-five companies. The First Brigade is, with the exception of the Sixth Regiment, from the city of Philadelphia, the excepted regiments being from the towns in its vicinity. The Second Brigade occupies the counties in the western half of the State, and the Third the counties in the eastern half, with the exception of the four counties in the southeastern part of the State occupied by the First Brigade.

The organization of the National Guard of Pennsylvania and its administration have been so thoroughly described by my immediate predecessor in this duty, that it would be superfluous for me to go over the same ground. There has been no change since last year. * * *

The annual appropriation is \$300,000. Each company of infantry has \$500 and each troop of cavalry and battery of artillery \$1,000 placed to its credit for purchase of uniforms, etc. From \$100 to \$200 are allowed in addition for armory rent. Subsistence and transportation are furnished, and a per diem also, with an increase for each enlistment. Officers receive the pay corresponding to the same grade in the regular Army.

FORMATION.

There was considerable want of promptness on the part of many regiments in forming line for parades and drills. The time between the first call and assembly was ample, and there should have been a simultaneous movement of companies from the company streets with the striking up of the band. Roll-calls at reveille and tattoo

were not generally well conducted. First sergeants, in some cases, did not form their companies at tattoo, but called their rolls, standing at the front of their tents, lantern in hand, the men being gathered around; this, however, was exceptional.

It is important that every ceremony should be conducted in a strictly military manner; neglect and carelessness at roll-calls is apt to be followed by indifference at other ceremonies, and a well conducted roll-call may be regarded as evidence of a well disciplined company.

ARMS.

The arm in the hands of the infantry is the Springfield rifle, calibers .50 and .45; the former largely predominating. The arms are all in excellent order, with the exception of a few .50-caliber rifles, which have parts lost or broken. These, I understand, are on hand for issue at the arsenal on requisition. The arms are all well cared for; in most companies by the men themselves, and in some by a man especially detailed from the company as an armorer. The former plan is, I believe, the one required and encouraged by the State military authorities. In many of the companies it was found that individual members had reversed the front sight in consequence of the sharp point tearing the blouse. For this they were properly checked, and were directed by the inspectors to replace them. Black leather waist-belts and steel bayonet-scarbards are issued, and are all in good, serviceable condition. Oiling and blacking the belts would not only add to the appearance, but would prolong their serviceability. The cartridge-boxes were of a special pattern, and not adapted to the .45-caliber cartridge.

The First, Twelfth, and Thirteenth Regiments are entirely armed with the .45 caliber; the Third, Fourth, Sixth, Eighth, Ninth, State Fencibles, and Gray Invincibles with the .50 caliber. The Second Regiment has eight companies armed with .45 caliber; the Sixteenth has 40 of the .45 caliber to a company; the Eighteenth has four companies armed with the .45 caliber; the Tenth Regiment has 169, caliber .45; and the Fourteenth and Fifteenth have both calibers, the .50 caliber being largely in excess. It is the intention to issue the .45 caliber as rapidly as available funds will permit.

The cavalry troops are all armed with the carbine and saber, all being in excellent condition.

EQUIPMENTS.

The regiments are all equipped for the field, each man being supplied and appearing at inspection with knapsack or blanket-bag, canteen, haversack, tin cup, blanket, rubber blanket, and overcoat. All the regiments except the Second, Eighteenth, and State Fencibles have the regulation State blanket-bag of brown canvas, with interior board frame to give it shape. The excepted organizations have a black enameled canvas knapsack, some of which (Second Regiment and State Fencibles) have wooden braces to fit the back. These are retained on account of past associations.

The State has recently adopted a gray blanket weighing 4 pounds, and 60 by 80 inches in size. They are of excellent quality. It is the intention to supply the entire command with them. At present there is a want of uniformity in color and quality. In most of the regiments I noticed many blankets which would be of little service in the field, some being mere pieces and others very thin from long use.

UNIFORMS.

The troops have no dress uniforms, and wear on all occasions the fatigue dress, similar to that of the U. S. Army (blouse, forage-cap, and trousers), and all of excellent material. In the center of the top of the cap is worn a keystone—red, white, or blue, depending on the number of the brigade. The uniforms are, as a rule, in fair order only; many are quite shabby and threadbare from long use. In some of the regiments whole companies were in new uniforms, and two of the regiments (Third and Fourteenth) were entirely clad in new uniforms. The blouses were generally well fitted to the men, except at the neck. The material for uniforms is issued to a company in kind, and it is made up by local tailors. The regiments are not supplied by the State with white helmets, but one or two of the organizations had provided themselves with them, and were permitted to wear them on drill and when not paraded with other troops. In hot weather, such as may be expected during the periods allotted to camping, the forage-cap offers little protection from the intense heat, and I would suggest that a white helmet be supplied.

One regiment entirely and four companies of another were supplied with brown canvas leggins. These give a very pleasing finish to the field uniform. White gloves were worn on all occasions under arms.

PERSONNEL.

The personnel of all the organizations is excellent. The officers are full of zeal, and anxious to bring their commands to a high standard of excellence. The knowledge of their duties, which they display on drills and ceremonies, is highly creditable and surprising, considering the few opportunities they have for practicing them. The men are young, active, and intelligent; the average age, would not, I think, exceed twenty-five years. I noticed but three or four old men in the ranks, and these had been connected with the militia for many years. In one or two of the regiments I noticed a number of men who struck me as being considerably under age, and whose physique was not up to the standard. The men were, generally, quite well set up, and they were remarkably steady in ranks. There were many recruits in ranks who had not as yet learned how to be steady, and the otherwise soldierly appearance of the line was frequently marred by their want of attention.

DISCIPLINE.

I was particularly impressed with the willing and cheerful manner with which the men performed their duties. Not a single case of insubordination came under my notice, and I did not see a case of drunkenness in any of the brigades. The camps were, generally, quiet, and good order prevailed.

The regulation requiring enlisted men to salute officers was not as strictly observed as it might and should have been. There was more or less attention given to it in the several brigades, but there is much room for improvement. I think if the men were exercised in the "right and left hand salute" in their armories with more frequency, and they were made to understand that the rank and office are the objects of respect, there would be less reluctance on their part to comply with this requirement. From my experience with the militia of other States, I know that it is possible to insure its observance. The officers were exceedingly particular in this matter when meeting or accosting each other, and set an example to the rank and file which they may follow without any loss of dignity or self-respect.

INSTRUCTION.

The troops were incessantly under instruction in military duties, drills, parades, reviews, guard mountings, guard duty, etc. Very few company drills took place, except occasionally in skirmishing; this is as it should be, as the time in camp should not be taken up with drills which may more properly be made the object of instruction at home. Battalion drills were held twice each day, and guard mounting took place in each regiment, troop, and battery every morning. I witnessed a number of the guard mountings, all of which were conducted in an exceedingly creditable manner, showing the result of armory instruction. Brigade dress parades were held every evening, and in a manner which calls for no adverse criticism. Constant improvement was made in drills and guard duty as the camp advanced. On battalion drills officers and guides gave evidence of a good knowledge of the principles of tactics, and of their duties. Mistakes were made, it is true, but when it is considered that the companies of a regiment come together but once a year, for eight days' instruction, it is surprising that the battalion drills are executed with the smoothness and precision they have attained.

In the skirmish drill much remains to be done; it has not received the attention its importance demands. Movements of troops in masses will, of course, be required beyond the fire of the enemy, but the battles of the future will be fought, necessarily, in open-order formation. The instruction of the soldier must be more individual—he must be taught to depend upon himself and not upon his neighbor. Independence and freedom of movement will be more looked to in the future. A high order of intelligence and discipline will be called for, and the soldier who has been thoroughly trained in this independent order of fighting in time of peace will find himself confident and self-reliant when brought into active service.

Officers' schools were held in some of the regiments.

GUARD DUTY.

Regimental guards, brigade guards, and guards for the headquarters of the governor were mounted daily. I was particularly impressed with the soldierly manner in which some of the last named performed their duties; sentinels walked their posts in a military manner, saluted, challenged, and carried their arms properly. They carried out their orders implicitly, and reflected much credit upon their instructors.

Staff officers from the staffs of the governor and division commanders were detailed to visit the guards and sentinels in the three encampments to see that they were properly and uniformly instructed. They were unremitting in their duty, day and night, and as a result there was a gradual improvement in guard duty from day to day.

Sentinels, generally, called for the corporal of the guard in too loud a tone of voice, the next sentinel, whose duty it is to repeat the call, being but a few yards away. With one exception, all guards coming under my observation were formed promptly and without confusion on the approach of those entitled to the compliment. I noticed an absence of field music with all the guards. A pamphlet on guard duty is in the hands of every enlisted man of the division, I understand.

Considerable attention is given to holding guard mounting in the armories. If to this be added the posting of sentinels and instructing them in their duties much will be gained toward having a well regulated and instructed guard in camp. Officers and men exhibited much zeal and interest in this most important branch of the soldier's duty. All were anxious to learn how to perform their duties as required by regulations and orders. When it is considered that each man in camp probably gets but one tour of guard duty during the encampment, the results obtained are much to their credit.

INSPECTIONS.

Each regiment and separate organization in each camp was paraded for review and inspection at hours fixed by the adjutant-general of the State. I accompanied him at all inspections, and had the opportunity of seeing in detail every organization in the State. The ceremony of review, which preceded the inspection, was generally well conducted, the alignments of companies being well preserved; the rear ranks, as a rule, having too much distance. I noticed that many officers failed to look toward the reviewing officer in saluting, and others did not observe the prescribed 6 yards in saluting and returning to the carry. The commands of some of the colonels were not exactly as prescribed, such as "Pass in review, *battalion* forward, guide right;" "Pass in review, *column* forward, guide right." At the command "March" the companies in many of the regiments did not take up the march together, some of the captains giving the command "Mark time" at the command "March." In wheeling from line into column, and the reverse, nearly all the pivot guides turned with their companies instead of standing fast. The field music in some of the regiments failed to beat the ruffle, others passed by the wrong flank to the rear of the column at inspection, and others failed to turn out at the proper place. The color-bearers failed in some few instances to drop the colors in salute when the regiment presented arms. With these few exceptions, the ceremony of review and inspection was exceedingly well rendered. In many of the regiments I noticed no palpable errors.

The inspections were rigidly conducted, generally occupying two hours. The command was first closely inspected for general appearance, after which each arm was thoroughly inspected. Every kit was examined to see that all State property for which each man was responsible was in his possession. Each soldier had on inspection his knapsack, wool blanket neatly folded flat and strapped against the back of the knapsack, rubber blanket under it, overcoat neatly rolled on top, canteen, haversack, and tin cup.

A hook and eye on the collar of the blouse would have insured a neater fit about the neck and serve to hide neckties of varied hues and shirts of many patterns and materials. For sake of uniformity, it would be well to issue a dark blue flannel shirt, such as is now furnished to the Regular troops. I noticed many white collars scattered through the ranks of the several regiments. One regiment had them throughout, in others certain companies were provided with them, and in others they were to be seen scattered through the command. While in field dress, I think it more appropriate that the white collar be dispensed with.

Each company was rated by the adjutant-general immediately after its inspection and before proceeding to the next, and before leaving the ground it was mustered for pay.

Considerable attention in many of the regiments is paid to the cleaning of the waist-belt plates and, to some extent, of the cap ornaments. I noticed several companies in which all the brasses were brightened. It adds so much to the appearance of the soldier that I am surprised all captains do not insist upon it.

The shoes worn by the men are of their own providing. They are not adapted for field service or even for short marches such as they are frequently subjected to. A suitable shoe of uniform pattern should form part of the equipment, to be worn only when on military service.

Arms were fairly well thrown up for inspection; in some regiments much better than in others. More attention should be paid to this, in detail, by company commanders. Many of the men brought their pieces to a full cock and failed to bring them to the safety-notch on receiving them back from the inspector. Many brought their arms to a carry before coming to an order from inspection.

Each regiment was followed on all occasions by its hospital attendants, bearing a stretcher and hospital pannier. These were frequently called into requisition in the camps of the First and Third Brigades, many men being overcome by the heat.

INSPECTION DRILLS.

Each regiment and independent organization was required to form at a stated hour for drill under the observation of the adjutant-general of the State and his assistants.

The regiments were not, as developed by these drills, equally proficient in the school of the battalion. In most of them the movements were very creditably executed, and in some there was scarcely a movement that was made with smoothness and precision. In some there was considerable noise and confusion, the officers giving their commands and corrections in too loud a tone of voice.

SANITARY ARRANGEMENTS AND POLICE.

On arriving at each camp the surgeon-general made a thorough inspection of the camps, their sanitary arrangements, kitchens, food, means and manner of cooking it, and general police. The brigade surgeons and the medical officers of each organization made daily inspections. The sinks were made by digging pits, and screening them with cotton cloth. These were disinfected daily, and, as a rule, effectually; they were, however, placed too near the body of the camp in all the brigades. The general police of the camps of the First and Third Brigades was excellent; that of the Second, with the exception of the camps of the Fifth, Fourteenth, and Sixteenth Regiments, was not commendable, piles of rubbish in the front of the camp and elsewhere detracting from its appearance.

At each regimental headquarters there was a tent furnished with beds, etc., for hospital purposes.

SIGNALING.

This branch of military instruction received no attention. A knowledge of the code and use of the flag is so easy of attainment, and, moreover, so important that I would recommend the instruction of at least two non-commissioned officers and four privates in every company. In case of riot in a city, where the telegraph wires are cut, it affords the only practicable means of communication. If the code on printed cards were distributed to companies, I am confident the division would find itself in possession of a signal corps at its next encampment, without any other effort to insure it.

TARGET PRACTICE.

Great interest is taken throughout the division in this subject. A gratifying increase in the number of marksmen and sharpshooters from year to year attests the fact that the labors of those having this matter in charge have not been unrewarded. The report of the general inspector of rifle practice for 1887 shows that there were 312 sharpshooters and 2,076 marksmen, an increase of 696 over the previous year. He informed me that the record of this year will probably show that 50 per cent. of the division will have qualified as marksmen. Each regiment has an inspector of rifle practice especially qualified for the duties. Some of the organizations have well-equipped ranges for armory practice, but I understand there is a want of proper facilities at many of the home stations for range practice. The many marksman's badges amply testify to the progress these organizations are making in this essential branch of a soldier's education.

The camp at Norristown (Camp Slemmer) was not provided with a range, as none could be found that would be free from danger, so that nothing could be accomplished in this direction.

At Mount Gretna (Camp Sheridan) an excellent range existed, having been constructed under the supervision of Lieut. James A. Leyden, Fourth U. S. Infantry, who was especially detailed for this duty by the War Department. Ten Laidley targets were arranged in line, with a deep markers' pit in front. The firing points were clearly marked by white stakes. A telephone line connected the 600-yard firing point with the pit. The range was constantly occupied in individual firing, and on one occasion skirmish firing took place, with excellent results. Lieutenant Leyden was constantly present, giving officers and men the benefit of his experience.

At the camp at Conneaut Lake (Camp Ord) a 600-yard range was established. It was quite primitive, the targets being fixed and the markers being required to run up from cover at the sides and put on the pasters. Very little individual practice

was had by this brigade, all the regiments indulging in volley firing, which I regard as a waste of time and ammunition in view of the fact that the brigade had qualified but one-fifth of its men as marksmen the previous year.

The record of each company is taken into account in rating its efficiency, and in some of them every man has qualified as a marksman. The officers, from the commander-in-chief down, are greatly interested in target practice, and at Mount Gretna the governor, the division commander, and the members of their staffs practiced at the ranges for classification and qualification.

Col. Lonis A. Watres, general inspector of rifle practice, and Lieut. Col. E. O. Shakespeare, division inspector, were unremitting in their attention to duties upon the range.

Besides the annual practice at camp, practice for places on teams for the "brigade match" and Creedmoor, where the interstate and Hilton trophy matches are shot, were held. The governor, on several occasions, presented medals to individual members of the command on parade.

The Wingate Manual is the one used in all State practice, but I understand it is the intention to adopt Blunt's.

The target practice is not confined to the infantry, both the City Troop and Sheridan Troop giving attention to it.

ARTILLERY.

There are three mounted batteries; one attached to each brigade. All of these batteries are very well drilled in the manual of piece and battery movements, and their harness, carriages, and equipments are kept in excellent order. The harness has been in use by the State since the war. Batteries A and B have the 10-pound Parrott field-guns, and Battery C the iron 6-pound smooth-bore gun made at Phoenixville during the war. The Parrott guns are very much worn, and would be of very questionable utility in active service; the same remark applies to the 6-pound smooth-bore, but in a greater degree. They answer very well for purposes of drill, however. Each battery has attached to it two Gatling guns complete, all in good working condition. The horses for all these batteries are hired for the occasion when they are required to be mounted; these in camp were in excellent condition and very tractable.

The stables, as were all those in camp, were of frames covered with canvas, this form having been adopted by the State, as it can readily be put up and removed, and is, moreover, in the long run, less expensive than wooden structures.

Two of these batteries, A and C, have their own armories, while B has, I understand, recently secured one by lease. Battery A marched to camp from Philadelphia.

CAVALRY.

Each brigade has a troop of cavalry; the City Troop, an organization dating from the Revolutionary war, being attached to the first brigade, the Sheridan Troop to the second, and the Governor's Troop to the third. The two former were fully equipped with carbines, sabers, horse equipments, etc.; the latter had not been supplied with horse equipments as yet, being a recently formed organization, and they used ordinary saddles and bridles. Equipments, I understand, were received at the arsenal too late for issue in time for camp. All these commands were well mounted and made a very creditable appearance on all occasions of ceremony. In company movements much proficiency was shown, but in the skirmish drill all were weak.

The City Troop and Sheridan Troop marched to camp, the former 19 miles, from Philadelphia to Norristown, and the latter 160 miles, from Tyrone to Conneaut Lake. The Third Regiment marched to Philadelphia on the return from camp.

The State encourages the marching of its organizations when located within 25 or 30 miles from the camp ground. Route marching is a very important part of a soldier's education, and more attention should be given to it. The care of the soldier on the march, bivouacking, pitching and breaking camp, duties of advance and rear guards, out post service, reconnaissances, etc., should all be made a part of militia instruction.

SUBSISTENCE AND MESSING.

The troops are subsisted on the ration as adopted in the U. S. Army, with the addition of potatoes, canned corn and tomatoes, and onions. The cost of the ration varies with the locality in which the camps are held. In 1887 the cost was 17.8 cents; this year I believe it will not exceed 20 cents. When the Guard encamps as a division, the commissary-general makes the contracts, and subsistence stores are issued to brigade commissaries through the division commissary. Four days' fresh meat and three days' pork, ham, or bacon are issued.

The supplies are all of the best quality, and, as far as I learned, gave satisfaction. Companies messes separately, the cooking being done by enlisted men detailed, or by hired cooks. The kitchens were supplied in most instances with large cooking ranges or stoves, supplemented by open grates made of piping. The tables were placed under canvas-covered frames and supplied with tin or crockery ware.

BOOKS AND RECORDS.

Each regiment and company keeps a regular set of books and records, and captains make returns, periodically, of all property, etc., with vouchers. In camp a morning report is kept and sent daily to regimental headquarters, thence to brigade headquarters, in consolidated form. During camp all books and records were rigidly inspected, being submitted by the captains and adjutants in person to the judge-advocate-general at division headquarters, he having been especially assigned the duty of inspecting them. I had an opportunity of examining some of them, and found them neatly and systematically kept.

Muster-rolls are made out in each camp, and each company is mustered for pay, the captain making an affidavit to the correctness of the roll.

Near the termination of each camp the brigades were reviewed by the governor and by Major-General Hartranft, commanding the division. These reviews were exceedingly well conducted, the companies passing in good form, with correct alignments, and the commands presented a very imposing appearance.

I have no recommendations or criticisms to make other than those embodied in the foregoing report.

The military authorities of the State are fully alive to the requirements of the Guard, the condition and efficiency of every organization being thoroughly known. It seems to be the determination that inferiority, either in commands or in personnel, shall find no place in the National Guard of Pennsylvania.

In closing this report I desire to extend my thanks to Governor James A. Beaver, Maj. Gen. John F. Hartranft, and the members of their staffs, and to Brig. Gen. D. H. Hastings, adjutant-general of the State, for many courtesies, both personal and official.

Very respectfully, your obedient servant,

A. C. M. PENNINGTON,
Major, Fourth Artillery, Brevet Colonel, U. S. Army.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

FORT SCHUYLER, NEW YORK HARBOR, *August 20, 1888.*

GENERAL: In obedience to paragraph 16, Special Orders, No. 146, current series, from the Headquarters of the Army, and letter of instructions from your office dated June 26, 1888, I have the honor to report the result of my inspection and observation of the troops of the National Guard, State of New York, at the camp of instruction at Peekskill, N. Y., from the 28th day of June to the 11th day of August, 1888.

I received the order above referred to on the 27th of June, and arrived at the camp on the 28th. The camp was opened on June 16, in accordance with General Orders, No. 8, General Headquarters State of New York, Adjutant-General's Office, Albany, April 13, 1888, and constituted a military post, with Maj. Gen. Josiah Porter, the adjutant-general of the State, in command.

THE TROOPS.

June 16 to 23.—The Fourteenth Regiment and First Provisional Battalion, consisting of the Nineteenth, Twenty-ninth, Thirty-ninth, and Forty-second Separate Companies. I was not in camp during this week.

Date.	Organization, etc.	Strength present and absent.		Average present during week.		Average percentage of attendance.
		Officers.	Men.	Officers.	Men.	
June 23 to 30.....	Thirty-second Regiment, from Brooklyn, Col. L. Finkelmeier. Second Provisional Battalion, Lieut. Col. A. C. Smith, Twenty-third Regiment, commanding— Third Separate Company..... Twenty-sixth Separate Company..... Thirty-third Separate Company..... Thirty-sixth Separate Company.....	30 4 3 4 4	406 90 89 68 61	26 3 3 3	295 83 79 63 57	73.54 91.48 89.12 91.66 92.30
June 30 to July 7..	Eleventh Regiment, from New York City, Col. A. P. Stewart. Third Provisional Battalion, Maj. W. A. Downs, Seventy-first Regiment, commanding— First Separate Company..... Thirteenth Separate Company..... Thirty-fourth Separate Company..... Fortieth Separate Company.....	27 4 4 3 3	582 60 89 62 59	25 3 3 3	479 58 81 55 51	82.75 95.31 90.32 89.23 87.09
July 7 to 14.....	Sixty-fifth Regiment, from Buffalo, Col. S. M. Welch, jr. Fourth Provisional Battalion, Maj. H. Chauncy, jr., Eighth Regiment, commanding— Fourth Separate Company..... Tenth Separate Company..... Eighteenth Separate Company..... Thirtieth Separate Company.....	33 4 3 4 3	439 75 57 54 51	29 3 3 3	379 60 46 46 43	86.44 79.75 81.66 84.48 85.18
July 14 to 21.....	Sixty-ninth Regiment, from New York City, Col. J. Cavanagh.	36	930	35	685	74.53
July 21 to 28.....	Thirteenth Regiment, from Brooklyn, Col. D. E. Austen. Third Battery (Gatling), from Brooklyn, Capt. H. S. Rasquin, commanding.	32 5	677 68	30 5	485 56	72.64 83.56
July 28 to Aug. 4.	Eighth Regiment, from New York City, Col. G. D. Scott. Fifth Provisional Battalion, Lieut. Col. S. C. Clobridge, Fourteenth Regiment, commanding— Twenty-eighth Separate Company..... Thirty-first Separate Company..... Thirty-seventh Separate Company..... Forty-third Separate Company.....	31 4 3 2 3	459 21 66 76 84	25 2 3 2 3	375 68 48 62 69	81.61 82.35 73.91 82.05 82.76
Aug. 4 to 11.....	Sixth Provisional Battalion, Maj. J. J. Riker, Twelfth Regiment, commanding— Seventh Separate Company..... Eighth Separate Company..... Twelfth Separate Company..... Twenty-first Separate Company..... Seventh Provisional Battalion, Capt. W. M. Kirby, Second Separate Company, commanding— Second Separate Company..... Twenty-third Separate Company..... Twenty-seventh Separate Company..... Thirty-second Separate Company..... Eighth Provisional Battalion, Lieut. Col. H. Dowd, Twelfth Regiment, commanding— Fourteenth Separate Company..... Fifteenth Separate Company..... Sixteenth Separate Company..... Twenty-fourth Separate Company.....	3 4 3 3 3 4 4 3 4 4 2 4 4	74 76 71 86 74 99 67 57 77 73 65 57 69	3 4 3 3 3 2 3 3 3	70 64 57 63 70 75 61 52 72 50 52 43 56	85.09 81.08 74.16 94.80 74.75 90.14 91.67 92.59 70.10 80.60 75.41 80.82

CLOTHING.

The clothing was of the State uniform pattern, consisting of a black helmet, forage-cap, double-breasted dark blue uniform coat, light blue trousers, blue or gray overcoat, and blouse. The troops in camp this year were all supplied by the State with excellent dark blue blouses of a uniform pattern. These blouses fitted the men well and added greatly to their soldierly appearance, comfort, and neatness. Some of the regiments and separate companies have white helmets and white trousers. The uniform is now very well adapted for field service; it was always clean and neat.

ARMS AND EQUIPMENTS.

The arms are the same that I reported upon when I visited this camp two years ago—the Remington rifle, caliber .50, with ordinary bayonet; the Frazier patent cartridge-box, carried on a black leather waist-belt, with a capacity for 20 rounds of ammunition. The Third Battery (Rasquin's) was armed with sabers and four mitrailleurs. The battery had no horses.

The troops were all supplied with knapsacks, canteens, and haversacks. The old glazed knapsack, with a wooden frame, is still worn; it would be of very little use in active service in the field. I believe the State officers are waiting for the U. S. Army authorities to adopt definitely some particular knapsack for use in field and garrison. It is to be hoped that a good serviceable knapsack, of a uniform pattern, for all foot troops may soon be in use in all the States and Territories. Col. H. C. Merriam's knapsack, which is easily carried, of good capacity and neat appearance, is, I think, the best equipment of this character I have ever seen. The arms and accouterments were always in a clean, serviceable condition.

The tents were the same that I reported upon in 1886; they are in good condition still, but look a little time-worn and stained. They have been well taken care of by the officers of the ordnance (quartermaster's) department. The tents were supplied with light cots, mattresses, camp-stools, pails, tin cups, wash-basins, and candlesticks. Good serviceable red blankets of uniform size were issued to the troops while in camp.

The troops were rationed by contract. The mess-hall had a dining capacity for about a thousand men. The kitchen and mess-hall were marvels of neatness and comfort. The food was excellent and well cooked. There was an excellent corps of waiters. The commissary officer and contractors understood their business, and performed it in a thoroughly satisfactory manner.

THE STAFF DEPARTMENTS.

The quartermaster's department, subsistence department, and ordnance department in camp were in charge of Brig. Gen. Joshua M. Varian, chief of ordnance of the State, and his assistant, Col. Joseph G. Story, ordnance department. Colonel Story was post quartermaster, post commissary, and post ordnance officer. The camp was laid out, the tents pitched, and everything placed in order before the arrival of the troops. This was done by hired laborers working under the direction of Colonel Story. The camp and garrison equipage, etc., were transferred by the post quartermaster to the regimental and battalion staff officers upon the arrival of the troops, and at the end of the week's encampment the property was duly accounted for and retransferred to the post quartermaster, and so on from week to week during the instruction season. I do not think that many articles were lost. The system was a good one.

The troops were transported to and from the camp under contracts made by the chief of ordnance (acting quartermaster-general) with steam-boat and railroad companies. They arrived and departed at the hours named in the schedule. The quartermaster's department was well arranged, and the whole machinery of transportation worked smoothly and pleasantly.

As I have stated before, the troops were fed by contract. Provision returns were made by company commanders; these were consolidated at regimental and battalion headquarters and forwarded to post headquarters for approval and orders. The returns were made for meals, so that if a man were absent from breakfast, dinner, or supper the State would not have to pay for the meals not eaten. The post adjutant examined these returns carefully, and approved them when correctly made out, and directed the post commissary of subsistence to furnish the number of meals called for. The system worked admirably, and the interests of the State were well conserved.

The ordnance department proper had very little to do in camp. The State allows powder for a morning and evening gun. Four salutes were fired from light 12-pounders for the governor of the State on the days he visited the camp. Blank cartridges were issued to the infantry for skirmishing and battalion drills. Colonel Story was kept busily employed in attending to all these departments, but he had a thorough knowledge of his duties and responsibilities, and never neglected to perform them properly.

MEDICAL DEPARTMENT.

Surg. Gen. Joseph D. Bryant had charge of the medical department. He made weekly visits to the camp. The dispensary and hospital tents were always in good order. The regimental and other surgeons and assistant surgeons were careful and prompt in the discharge of their duties. They were relieved weekly. The hospital stewards were also attentive and prompt. No one but a duly examined and licensed pharmacist is permitted to act as hospital steward. The surgeons and assistant surgeons were required to inspect the camp daily, and to report its condition in writing to the post adjutant. These reports were rendered twice a day. The latrines, drains, bath-houses, kitchen, and mess-hall had to be duly inspected and their condition reported.

There was very little sickness in camp. There was one severe case of double pneumonia, that of a private of the Sixty-ninth Regiment, but he was so well taken care of and so skillfully treated that he was able to walk when the camp was broken up on the 11th of August. He was taken sick on the 18th of July. The medical department was well and skillfully organized by the surgeon-general.

PAY DEPARTMENT.

The pay-rolls were made out and submitted to the post adjutant for verification, and by him turned over to the paymaster, so as to be ready for the payments on the last day of each week just before the troops departed from camp. Col. E. L. Judson, aide-de-camp, was the paymaster. Checks were drawn for each officer and man, and great care was observed in the payments, which were rapidly conducted.

INSPECTOR-GENERAL'S DEPARTMENT.

There was no inspection by any officer of this department while the troops were in camp. The troops are regularly inspected at their armories by the authorized inspectors.

TARGET PRACTICE.

There was no target firing in camp. This practice is conducted at the home ranges, and is, I was informed, carefully attended to. The week's service in camp is wholly given to skirmishing and such battalion and company drills as can not be taught in the armories.

INSTRUCTION.

There were two drills daily, company drill before guard mounting and battalion drill from 9.30 a. m. to 11.30 a. m. Dress parade at retreat. The dress parades and guard mountings were, as a rule, very creditably executed, and it was pleasant to observe the decided improvement in these ceremonies made by each command during its week in camp. The company drills were nearly all devoted to skirmishing. The battalion drills were, with some few exceptions, only in such movements as could not be executed in the armories. There were some good battalion skirmish drills by all the battalions, but notably by the Sixty-fifth and Thirteenth Regiments and some of the provisional battalions. A great deal more attention was paid to this instruction in the camp this year than there was two years ago. I noticed that at battalion drills a good deal of time was taken up by the battalion commanders in explaining at great length the duties of company commanders, guides, etc., while the battalions were kept standing at attention or at a rest. This greatly retarded the drills and wearied the commands. Battalion commanders should, I think, fully instruct the officers and sergeants in the movements to be executed before the battalions are formed for drill. This would do away with the necessity for long harangues on the drill-ground, where more movements could be executed in a given time. I know that some of the battalion commanders adopted this system with great benefit to their commands.

The drills and ceremonies were very well conducted, and great improvement was made by all the regiments and separate companies during their tours of duty at the camp.

DISCIPLINE.

The discipline was very good, indeed. During the week the Eleventh Regiment was in camp there was some little disorder occasioned by some of the men of that organization absenting themselves without leave for the purpose of visiting the beer and whisky shops in the village of Annsville. Proper remedies were adopted and the absenteeism checked by the post commander. With this exception, the good order in camp was remarkable. The men behaved admirably and were obedient and re-

spectful. There was no noise in camp between taps and reveille, and no horseplay or tomfoolery at any time. Every officer and man seemed fully impressed with the idea that the camp of instruction was a place in which the duties of soldiers were to be learned, and not a place for disorder of any kind. Military courtesy, as a rule, was strictly observed. The police of the camp and its surroundings was thoroughly attended to by the camp inspector, Capt. Horatio S. Stacpole, Tenth Battalion, and the medical officers of the various commands.

Guard duty was well performed, particularly so during the last days in camp of the different commands. There were a good many men in camp who had never been on guard, and it was not to be wondered at if some of them made mistakes when first posted as sentinels. The officers of the day and of the guards, as well as the non-commissioned officers, were required to visit and instruct the sentinels of each relief, and to see that each sentinel performed his duty properly. Capt. N. B. Thurston, Twenty-second Regiment, who was detailed by the post commander as instructor of guards, is a thoroughly competent officer. He generally assembled the details the day before they mounted guard, and instructed the officers, non-commissioned officers, and privates in the duties they would be called on to perform during their tours of guard duty. It was instructive and exceedingly interesting to listen to these lectures, and observe how attentively the audience, comfortably seated upon campstools in the shade, followed the captain as he described, step by step, the duties of officers, sergeants, corporals, and sentinels while on guard. He used a large black-board upon which he delineated the camp and the sentinels' posts, etc. He also made frequent inspections of the guards and sentinels, and caused all irregularities and inattention to be corrected.

GENERAL REMARKS.

The facilities for placing the troops in a condition for active service are, so far as I can judge, very good, indeed. The staff officers of the State are zealous and competent, and their system of transporting, clothing, and feeding of troops is a really excellent one. The regimental and company officers are generally well instructed, but I noticed a good many subalterns and three or four captains who were careless and inefficient.

The Sixty-fifth Regiment, from Buffalo, has made great progress in drill and discipline since I saw it two years ago. Colonel Welch, its commanding officer, has improved it very much since he obtained the command. The Sixty-ninth is a superb body of men. They are evenly sized, and of splendid physique, manly, soldierly, and teachable. Colonel Cavanagh is proud of his regiment, and he has very good reason to feel so. The Thirty-second Separate Company, from Hoosick Falls, was, without doubt, the best drilled company in camp this year; its manual of arms, marching, etc., were as near perfection as possible; it was a pleasure to see it on the drill-ground, and to observe how well, and without noise, the guides and file-closers performed their duties. The Thirtieth Separate Company, from Jamestown, is a large, splendid, well-drilled company. The Thirtieth Separate Company, from Elmira, although small in numbers, presented a fine appearance. The Thirty-seventh Separate Company, from Schenectady, was well drilled and disciplined. In fact, nearly all of the separate companies were in good military shape, and the provisional battalions formed from them were easily handled and made rapid progress in drill during their respective tours of duty in camp. The three provisional battalions in camp during the last week were splendid bodies of men; they are a credit to the National Guard of the State. The officers selected to command the provisional battalions, and whose names are given in this report, were well qualified for their duties. They were zealous and indefatigable in their exertions to improve their commands, and I am happy to state that they were eminently successful.

The governor of the State made four visits to the camp this year. His first visit was made the week before my arrival, and I did not, therefore, witness the ceremonies which took place on that occasion. During the other three visits salutes were fired upon his arrival by detachments of artillery from the First (Wendell's) and Second (Earle's) Batteries; light 12-pounders were used for this purpose. The governor reviewed the troops that were in camp when he made his visits, and all of the ceremonies performed on these occasions were conducted in a strictly military manner.

This camp is well named, a camp of instruction, and its commanding officer, General Porter, has certainly succeeded in the formation of a uniform system of instruction for the National Guard of the State. The camp has been greatly improved since my visit of two years ago by a perfect system of drainage, and by the erection on the grounds of bath-houses and water-closets.

Col. Fred. Phisterer, the assistant adjutant-general of the State, was the post adjutant. He instructed the adjutants of regiments and battalions as well as the first sergeants of companies. All returns, reports, rolls, and papers of every kind passed through his hands. My report of two years ago upon the conduct of business in the adjutant's office of the camp is also true of this year.

In conclusion, I desire to thank General Porter and the officers of his staff for the courtesy and kindness extended to me during my official visit to the camp at Peekskill.

I am, general, very respectfully, your obedient servant,

R. H. JACKSON,

Major Fifth Artillery, Brevet Brigadier-General, U. S. Army.

THE ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

FORT ABRAHAM LINCOLN, DAK., August 31, 1888.

SIR: I have the honor to report that in compliance with Special Orders No. 102, current series, from your office, I visited the camp of instruction of the Illinois National Guard, near Springfield, reporting to Adj. Gen. J. W. Vance on June 1.

THE CAMP.

The camp is named Camp Lincoln, and is situated just outside the city limits. A line of street cars run to the entrance of the camp. It consists of 160 acres of land, which is owned by the State. It is one of the most picturesque camp-grounds to be found in any section of the country. * * * A water-main extends throughout the whole camp and between the mess-tents and kitchens, with hydrants at convenient intervals. In rear of the kitchens barrels were placed for offal, which were emptied twice daily. The tents used by the officers and enlisted men were army wall-tents with flies. * * * The whole camp was lighted with electric lights. A very handsome and substantial picket fence surrounds the whole camp ground. On the northeast side of the camp is a swimming pool 175 feet long by 100 feet wide. * * * Off this pool ice is gathered in winter in sufficient quantity to supply camp the following summer. The building used for the storage of subsistence supplies is 32 by 16 feet, and is divided into three rooms. The stables consist of two frame buildings, each 110 feet in length, with capacity for stabling eighty horses.

RIFLE RANGE.

The rifle range lies in the north half of the grounds. The targets are at the base of a hill some 75 feet high. * * * There are twenty targets, similar to Laidley's, in use. * * * Telephone connects the 200 and 500 yards' firing points with the pit.

The range is one of the best in the country, and its construction reflects great credit upon the inspector-general of rifle practice, under whose direction it was built.

ORGANIZATION.

The National Guard of Illinois is limited by law to 4,000 officers and enlisted men, and is divided into two brigades. The First, Second, Third, and Fourth Regiments, with Battery D, constitute the First Brigade; and the Fifth, Sixth, and Eighth Regiments, with Battery A, constitute the Second Brigade. There is no cavalry in the State.

The following are the regiments and batteries which were in camp and inspected, with the dates of their arrival and departure, together with the strength of each, taken from the morning report of Wednesday of each week:

Command.	No. of companies.	Present.		Absent.		Aggregate.		Date.
		Officers.	Men.	Officers.	Men.	Officers.	Men.	
Second Infantry	12	29	461	12	296	41	757	June 2 to 9.
Third Infantry	8	24	252	13	305	37	557	June 9 to 16.
Fourth Infantry	8	29	310	5	150	34	460	June 23 to 30.
First Infantry	8	26	370	8	97	34	467	July 7 to 14.
Sixth Infantry	8	29	291	5	78	34	369	July 16 to 23.
Eighth Infantry	12	33	567	3	39	36	606	July 23 to 30.
Fifth Infantry	12	38	465	6	153	44	618	July 30 to August 6.
Battery D	1	3	64	1	21	4	85	July 7 to 14.
Battery A	1	2	70	2	11	4	81	July 18 to 22.
Total	70	213	2,850	55	1,150	268	4,000	

UNIFORM

The State furnishes a uniform consisting of blouse, trousers, forage-cap, and white helmet, of the same color and pattern as that worn by the Army but of finer material. The clothing is issued to the men, but remains the property of the State, and when worn out is inspected and condemned like other property.

In the Second Regiment the men had a complete United States infantry dress uniform, which was purchased by the regiment.

ARMS AND EQUIPMENT.

The arms and equipment of the National Guard consist of the Springfield rifle, caliber .45, with safety-notch and Buffington sight. These arms were sent to the National Armory at Springfield, Mass., last fall, where the new sight was attached, barrels browned, and necessary repairs made. The McKeever cartridge-box; waist-belt and plate; steel bayonet-scarbald, with Hoffman attachment; blanket bag; haversack; canteen; meat can; knife; fork; spoon; and tin cup.

CAMP EQUIPAGE.

At the arsenal at Springfield tents are kept in sufficient number for quartering the whole National Guard; also camp-kettles, mess-pans, bed-sacks, and axes.

RATIONS.

Rations were issued daily upon returns prepared by company commanders and approved by the commanding officer.

The companies were formed on the company streets and marched to meals. In all the regiments, except the Second, the officers messed with their companies. The average cost of the ration to the State was about 23 cents.

INSPECTIONS.

Except the Second, I inspected all the regiments on the Sunday following their arrival in camp. The Second Regiment being the first in camp had more work to do in the filling of bed-sacks and police; the inspection of the regiment was postponed until Wednesday morning. At the hour named the line was promptly formed, and the ceremony of review was very creditably executed. The marching and wheelings were good and distances well kept. The arms and accouterments were found to be in good condition, and the clothing and brasses to be clean and well cared for. Company C was in excellent order. The police of camp was good and bedding neatly folded.

The Third Regiment was inspected June 10. The formation was slow. The review was fairly well executed, in marching, wheelings, and distances. The arms were in fair condition; the belts and cartridge-boxes looked generally neglected, showing want of care and shoe-blackening. Company H was the cleanest.

The Fourth Regiment was inspected June 24. The inspection was preceded by a review, at which the colonel appeared with his trousers stuffed into his boots. The formation was very slow. The ceremony was poorly executed, the marchings and wheelings being ragged and distances poorly kept. The arms were in fair condition, except the company from Streater, whose rifles were rusty and dirty. This company was ordered an additional inspection for the afternoon, with what result I did not learn.

The First Regiment was inspected July 8. The line was promptly formed, and the review which preceded the inspection was well executed, the marching, wheelings, and distances being good. The arms of this regiment were in a fair condition. The accouterments showed want of care and blackening. Company E was the cleanest.

Light Battery D was inspected same day. It consists of four 12-pounder guns and caissons, and four Gatling guns, caliber .45, rotary feed. The 12-pounder guns are owned by the Citizens' Association of Chicago, the Gatling guns by the State. The arms and equipments were found in good order. The men were dressed in a new light artillery dress uniform and presented a soldierly appearance.

The Sixth Regiment was inspected July 22. The regiment was reviewed the evening previous by the brigade commander, so that ceremony was dispensed with. The marchings and wheelings were fairly executed, and the distances were creditable, considering that more than one-half the regiment were recruits. The arms were in fair condition, but the cartridge-boxes and belts showed want of care.

Battery A was in camp with the Sixth Regiment. It had marched from Danville, a distance of 124 miles, in four days, and the experience gained was very beneficial to both officers and men. The battery is well drilled. It was inspected after the regiment. It consists of four 3-inch rifle guns and caissons, and four Gatling guns, caliber .45, rotary feed. The 3-inch rifle guns belong to the association. The Gatling guns are owned by the State. The arms and accouterments were in good order.

The Eighth Regiment was inspected July 29. The formation was very slow. There was no review. The wheeling into column was wretched. The arms and accouterments, with the exception of Company H, were in a filthy condition. The rifles of Company K were unserviceable by reason of rust and dirt. The adjutant-general, who accompanied me on my inspection, detailed an officer to inspect this company again in the evening. The result I did not learn. The arms of Company H were in good condition; the cartridge-boxes and belts were neatly blacked and brasses clean. The inspection of quarters showed want of system in folding blankets and overcoats. Police, bad.

The Fifth Regiment was inspected August 5. The review was very good. The arms were generally in good order, but the accouterments showed neglect. Captain Wells's company deserves particular mention for the excellent condition of its arms and accouterments, and the soldier-like appearance of its bedding and clothing at inspection of quarters. The police of camp was good.

DRILLS AND CEREMONIES.

Camp Lincoln was created a post in 1887, and each regimental commander issued orders for hours of service and roll-calls. As each regiment arrived, I tendered my services to the colonel for drills, ceremonies, or any other duty in which I could make myself useful.

The Second Infantry * * * had but one daily drill under arms. It had "setting-up" drill for twenty minutes after reveille each morning. Except one battalion, drills were confined to company and company skirmish. At the company drills the field officers were present as superintendents. All the company movements were well executed, and the skirmish drills showed the company commanders to have a good knowledge of tactics. Company C was the best. Rain on the last day of camp duty cut off battalion skirmish drill. The ceremonies of guard mounting and dress parade were at first slow in formation, but improved daily to the close of the regiment's tour of duty, when they could be classed as very good. The acting adjutant of the regiment was a very efficient and competent officer. * * *

The Third Regiment is composed of detached companies that come together but once a year at the State camp. The regiment had one battalion and one company drill daily. Fair progress was made in drill and the improvement each day noticeable. The ceremonies were very badly conducted at first; but the mistakes of each day were rectified in succeeding ones, and the later ceremonies were very well conducted; the formations were prompt. * * *

The Fourth Regiment is also one composed of companies widely scattered. It had but one battalion drill daily, until it was discovered on a battalion skirmish drill that very few of the officers knew how to deploy their companies, when, on my recommendation, company skirmish drills were ordered for the afternoon. A closer study of tactics and its application to company skirmish drill in the armory or on the streets is recommended to many of the officers of this regiment. In battalion drill good progress was made. The skirmish drill of Company D was very good. Company E was the best drilled company in the regiment, although its movements were not strictly tactical. The formations for drills and ceremonies were very, very slow, and so continued throughout the week. * * *

The First Regiment has its headquarters at Chicago. But one battalion and one company skirmish was ordered daily. Owing to rain, this regiment had but four working days, two battalion and two company drills. The drills were well executed, but few errors being noticed. This regiment devoted one of its four working days to athletic sports and one exclusively to target practice. The propriety of allowing one day to these sports in a camp for military instruction is questionable. The formations for drills and ceremonies were prompt, and the ceremonies well executed. The adjutant is an excellent officer in all that pertains to his duties. * * *

Battery D was in camp with the First Infantry. The horses were hired by the State. The drills were very good, and under its veteran captain employed every hour profitably.

The Sixth Regiment is composed of detached companies. It had two battalion and one company drill daily. Although more than one-half of the men of this regiment were enlisted since last encampment, the colonel appeared determined to close his week with a well-drilled organization, and he succeeded. His instruction was thorough, and he gave his personal attention to the drills of his regiment. Company, battalion, and skirmish drills were alike well executed before the regiment left camp. The formations were reasonably prompt and ceremonies were fairly executed. * * *

The Eighth Regiment is more widely scattered than either of the other regiments. While the enlisted men are equally as good as any in the Guard, the officers, with some few exceptions, do not come up to the standard of the other regiments. There were two drills daily. * * * The regiment dragged slowly along, and left camp not much benefited by its week's tour of duty. * * *

The Fifth Regiment is also composed of detached companies. It had two battalion and one company drill daily. The colonel worked hard, and made the officers and men of his regiment share in his labor, that good results might follow. The battalion and company drills were well executed, and the Fifth left camp as well drilled as any regiment in the National Guard. The formations were prompt, and the ceremonies of guard mounting and dress parade reflected credit upon the adjutant. * * *

GUARD DUTY.

But little attention seemed to have been given to this important duty by the officers of the National Guard. The State had adopted a manual of guard duty, and each company was furnished with a number of copies; but, if they had been made any use of, the effect was not observable in several regiments.

I visited the sentinels both in day-time and at night. I found but few who knew anything of the duties of a sentinel. At night the challenges were invariably preceded by the command "Halt." Many sentinels carried their rifles in all conceivable positions; some would salute by bringing the left hand to the cap while the rifle remained at a "carry," and in two instances sentinels sitting down in the sentry-boxes with rifles across their knees saluted me with the hand to the cap without changing position. They could be seen daily standing on post with arms at an order conversing with the sentinels next to them, sometimes in familiar conversation with citizens. There was too much visiting by members of the guard to the company tents. In one instance I found but one officer and three non-commissioned officers present at the guard-tents, the remainder of the guard having taken off their belts and gone to play base-ball. But few could distinguish the rank of a field officer. * * * The enlisted men of the guard I found anxious to learn their duties, but as each man did but one tour of guard while in camp, I was unable to discover if the instructions given them were remembered. In some regiments not only was the sentinel in front of the guard-tents given the countersign, but he also had the "parole." I do not remember of but few cases where the guard was turned out for the commanding officer or officer of the day, although I saw the latter officer frequently approach the guard-tents. The general commanding the Second Brigade when visiting the camp to review his regiments, passed the guard-tents twice without being noticed by the sentinel. For all this the blame must rest with regimental and company commanders. The best guard duty was done by the Second Regiment, and next best by the Fifth Regiment.

I would earnestly recommend that thorough instruction in guard duty shall be given in the armories; that guard mounting be held and sentinels be posted and questioned. As a prelude to this, officers should be required to recite and be practiced upon the duties of guards and sentinels. Inspectors should, when making their tour, require the commands to exhibit their knowledge of these duties, as they are probably the most important that appertains to a soldier's duty. The short tour of camp duty permitted the National Guard is not sufficient to give them thorough instruction in this matter. I would also recommend that a guard-house be erected, with a prison room attached. In a suitable building reliefs could be instructed in their duties before being posted, the guard could be kept together, and the men could rest without suffering from the heat of a summer sun.

DISCIPLINE.

The discipline of the several regiments was fairly good. The men were subordinate and generally willing; large numbers of them left camp after retreat and went to Springfield without authority, the sentinel's orders being to halt all entering camp after taps. In some regiments guards were sent out and delinquents brought back, but no adequate punishment could follow these infractions of discipline. The signal "Extinguish lights" was generally obeyed. * * * There was too much familiarity between the officers and men. I noticed daily enlisted men in and about the officers' tents, and officers sitting with men in the company streets or in their tents. To drink and smoke with them will not increase the discipline of a company or insure that respect which is indispensable to a well-regulated command. Good discipline requires that while on duty the social equality of civil life should give way to the distinctions

of the military system. Officers should not mess with their men. Measures are often discussed by the enlisted men at table with a freedom injurious to discipline. If regimental messes can not be established, then the officers should have their meals before or after the enlisted men.

MILITARY COURTESY.

There was not sufficient attention paid to military courtesy. Men seldom saluted officers. . . . Men would salute while smoking, others while sitting, and but few thought of buttoning the blouse on standing to attention.

TARGET PRACTICE.

The State has for its inspector-general of rifle practice one of the most competent and energetic officers to be found anywhere. The patience and interest shown by him in instructing the officers and men in the use of the rifle is deserving of the highest commendation. Each regiment has an inspector of rifle practice, who assisted the inspector-general in his labors. Company officers, as a rule, were but of little value as instructors of their men, not having had either theoretical or practical knowledge of the work. Two companies were sent to the range each morning and two in the afternoon. The system of scoring is different from that of the Army.

The idea prevailing among the instructors in the National Guard is to teach the men the practical use of the rifle in the simplest way possible. The target practice year ends October 31.

The following is the regimental per cent. of all present in camp who took part in rifle firing; it is based on the consolidated morning report: First Regiment, 71; Second Regiment, 72; Third Regiment, 77; Fourth Regiment, 75; Fifth Regiment, 87; Sixth Regiment, 82; Eighth Regiment, 86.

The batteries were instructed in the firing of the Gatling guns at 600 yards. Each man fired ten rounds, with the following results out of a possible: Battery A: Number of men firing, 42; battery per cent., 38. Battery D: Number of men firing, 35; battery per cent., 45.

STAFF DEPARTMENTS.

The adjutant-general is *ex-officio* quartermaster and commissary general and chief of ordnance. His assistant in these departments is Lieut. Col. J. C. Bell, an officer of large experience and untiring energy. All supplies are purchased under written contract, and there is always on hand at the arsenal in Springfield enough ammunition, clothing, and equipage to place the troops of the State in the field whenever called on. Medicine-chests similar to those used in the Army were furnished by the surgeon-general to the post surgeon, and additional supplies purchased from time to time as necessity required. The stores were in good shape.

The several regimental quartermasters were found to be competent and efficient officers. They acted in the capacity of assistant commissaries of subsistence during the tour of duty of their regiment.

PERSONNEL.

The personnel of the several regiments is excellent. No better material could be found anywhere to make good soldiers. The ruddy, healthy look of the men and their youthful appearance impressed me. The average age would not exceed twenty-five years.

The officers are generally intelligent and fairly up in the tactics, but they are lacking in the important duties of guards and sentinels. There was an evident and sincere desire to learn and to help learn.

REMARKS

In only two regiments—the First and Fourth—did the lieutenant-colonels or majors drill the battalion. All field officers should be required to drill under their colonels as instructors.

Officers' and non-commissioned schools were held. The instructions were in tactics and customs of service in some regiments, and in others in ceremonies and the manual of the sword for officers; and for the non-commissioned officers the duties of guides and ceremonies. I attended all to which I had been invited, and acted as instructor.

While it is desirable that colonels of regiments should command the post in order to attain a knowledge of its administration, I think that the number and kind of drills, daily, should be established by an order from the adjutant-general's office. One drill a day is not sufficient for a regiment that only meets at the State camp once a year.

More attention should be paid to the "setting-up" exercises. The unsteadiness of the men in ranks, the raising of hands and turning of heads at parades and guard mounting should be corrected by company commanders.

* * * * *

CONCLUSION.

Upon the whole, I am prepared to say that the National Guard of Illinois is as well equipped and in as fair a state of drill and discipline as many in the older States. It is a splendid body of men, deserving of the respect and support of the people of the great State of Illinois.

To the regimental commanders and other officers I make acknowledgment of the kindnesses and courtesies extended to me, and trust that my efforts at the camp of 1888 may prove of service to their organizations.

In closing this report I desire to acknowledge repeated courtesies extended by his excellency Governor Oglesby, Adjutant-General Vance, Assistant Adjutant-General Ewert, Colonels Shaffer and Bell; and my sincere thanks are due for the hospitality and many acts of personal kindness received while I was present with them.

Very respectfully, your obedient servant,

JAMES HALLORAN.
Captain, Twelfth Infantry.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

FORT LEAVENWORTH, KANS., August 27, 1888.

SIR: In obedience to paragraph 21, Special Orders No. 102, Headquarters of the Army, Adjutant-General's Office, Washington, D. C., May 3, 1888, and letter of instructions from the Adjutant-General's Office, dated May 4, 1888, I have the honor to report herein the result of my inspection and observation of the troops of the North Carolina State Guard, in camp at Wrightsville Sound, North Carolina.

Leaving Fort Leavenworth July 5, 1888, I proceeded at once to Raleigh, N. C., and reported to his excellency Governor A. M. Scales. I afterward called upon officers of the staff of the commander-in-chief (governor), ascertaining that the encampment would be for the period from July 18 to 27, 1888.

I left Raleigh on the afternoon of July 16, arriving at Wilmington, N. C., on the evening of the same day. On the following day, July 17, I proceeded to camp, which was located at Seaside Park, Wrightsville Sound, in full view of the ocean, about 8 miles by rail from the city of Wilmington, and nearly a half mile from the railway station at Wrightsville.

A more desirable camping ground could not have been obtained in the entire State; it was as near perfection as it could possibly be, and it would be of great advantage to the State Guard if the property could be secured to the State of North Carolina and be converted into a permanent camp for annual instruction.

I arrived at camp with the first detachment of troops, viz, Company C, Second Regiment (Wilmington Light Infantry).

During the night of July 17 all of the troops ordered to take part in the encampment arrived: First Regiment, Col. John W. Cotten, seven companies; Second Regiment, Col. William C. Jones, five companies; Third Regiment, Col. James D. Glenn, seven companies; Fourth Regiment, Col. J. T. Anthony, seven companies; and one troop of cavalry, dismounted (Scotland Neck Mounted Riflemen)—total, twenty-seven companies.

The camp was opened with ceremony on the morning of July 18, 1888, and was named Camp Pender. * * *

Several days before the commencement of the encampment Col. Fred. A. Olds, quartermaster general, and Col. William G. Lewis, engineer-in-chief, proceeded to Wrightsville with all of the camp equipage belonging to the State, located the camp, had the tents pitched, temporary wooden kitchens constructed, and complete arrangements made for the comfort of the troops, who, on arrival, were assigned to the particular part of the camp they were to occupy.

Each regiment had its own camp, but the several camps were in close proximity to each other.

Camp Pender was commanded by Brig. Gen. Johnstone Jones, the adjutant-general of the State.

THE SUPPLY DEPARTMENT.

Although there is on the staff of the commander-in-chief a commissary-general there is, in fact, no subsistence department. During the encampment each company was ordered to rely on itself for subsistence, to be prepared to establish company messes, and to that end two cooks and one caterer were employed by each company.

Arrangements were made, however, by Col. John T. Cantwell, commissary-general, whereby fresh meats, vegetables, and other provisions could be obtained either in Wilmington or at camp at the most reasonable rates. I have been informed that the cost of subsistence was only about 35 cents per capita per day. When the troops or any part thereof are ordered into service, as in the case of riot, etc., the State allows commutation of rations, the companies providing cooks, as during the encampment.

The tentage was all in excellent order, and consists of one hospital tent, forty-three wall tents, and two hundred and fifty common tents; they were all serviceable, and the clean white duck contrasted so beautifully with the bright green foliage of the trees surrounding them that they had the appearance of being all new. Camp equipment also comprises every article usually furnished by the Quartermaster's Department U. S. Army, with the exception of mess-pans and camp-kettles.

Under the careful management of Colonel Olds, all of the camp equipment, for which he is responsible, was transported from Raleigh to Wrightsville, tents pitched, occupied by one thousand men for ten days, camp struck, tents packed and returned to Raleigh without injury, and a deficit of only about fifty tent-poles and one ridge-pole. This speaks well of the management of this department.

Transportation of the troops to and from the encampment was by contract with the railroad companies, and upon regular orders or transportation blanks, similar to those used in the United States Army.

The uniform (full and undress) recently adopted is the same as the infantry uniform of the regular Army, except for full dress; the coats are double-breasted.

Of the thirty companies now composing the State guard, seventeen have the full-dress regulation uniform and eighteen have the regulation undress uniform, all new and in good condition.

The other companies of the guard have a gray uniform, some with white and some with red facings; two or three companies, however, have a dark green uniform, with gold or buff facings.

It is expected before June 30, 1889, to have the entire State guard furnished with the regulation uniform, both full and undress.

Overcoats, of the color and pattern used in the regular Army, will be issued before winter.

ARMS AND EQUIPMENTS.

The arms consist of 2,100 Springfield rifles, caliber .45, and 42 Springfield carbines, caliber .45, of the latest issue, in excellent condition and ready for use. The equipments are all of the latest patterns and in good, serviceable condition.

These arms and equipments are issued to twenty-eight companies of infantry (white), two companies of infantry (colored), one troop of cavalry, and seven military schools. The schools and one company are supplied with the cadet rifle, the rest with the service rifle.

Each member of the guard, in addition to arms and accouterments, is fully equipped with knapsack, haversack, canteen, tin cup, meat-ration can, knife, fork, and spoon, all in good condition. All of the State guard is, therefore, in condition to take the field; particularly those companies having the undress uniform.

In connection herewith, I would report that every company of the guard is so stationed as to have telegraphic and railroad communication with headquarters at Raleigh; consequently, could respond promptly to orders from the commander-in-chief.

THE MEDICAL DEPARTMENT.

The medical department, also the control of the sanitary condition of the camp, was in charge of Col. Hubert Haywood, surgeon-general, who was assisted by Capt. J. M. Baker, assistant surgeon-general, and the surgeons of the several regiments. A good building on the ground was used as the hospital for the entire command, it being supplied with cots and other conveniences for the sick.

The sanitary condition of camp was good, the health of the command excellent; here was not a serious case of sickness during the encampment, due in a large measure to the precautions advised by the surgeon-general. * * *

INSTRUCTION.

As all of the companies were well instructed in the school of the company, except skirmish drill, it was determined that instruction and exercises would be directed to camp duties, guard duty, skirmish drill, and the school of the battalion, and to that end guard mounting was ordered at 8 a. m., battalion drills at 9 a. m., and 4.20 p. m., each drill of an hour and a half duration, and dress parade at 6.30 p. m.

GUARD DUTY.

Each regiment had its own guard mounting and guard, having an officer of the day and officer of the guard; some regiments at times mounted two officers of the guard. A field officer of the day, or brigade officer of the day, had charge of the entire camp, receiving his instructions from the commanding officer of the camp.

The ceremony of guard mounting was very well done, and great improvement was noticeable from day to day, but guard-duty was not as well performed as it should have been; this I attributed to the fact that sentinels were not posted during the day, consequently much valuable time for instruction in this very important duty was lost. All of the members of the guard were required to attend morning and afternoon drills and dress parade, and at about tattoo required to go on post, and after the duties and fatigues of the day they were in no condition to walk post with that attention and spirit so desirable. There was also too much conversation between sentries of adjacent posts and with passers-by.

Battalion drills were exceedingly good, particularly as there were many companies assembled for battalion drill for the first time. A marked improvement was noticed in these drills toward the end of the encampment. Dress-parades, held daily, were probably the most attractive feature of the encampment to the public. The troops certainly made a very fine display. The formation of the line of battle at parades and at drills was not as prompt as it should have been. All of the companies were slow in moving out from their company streets; in like manner the details were somewhat slow in forming the line at guard mounting. Companies and details should march out from their company streets almost at the same time, so as to arrive upon the line in rapid succession.

One morning was devoted to brigade drill. At the request of the colonels commanding the four regiments, I was invited by Brigadier-General Jones to drill the brigade. Considering the fact that this was the first drill of the kind they ever had it was very satisfactory.

* * * * *

On July 18, the first day of encampment, there were present for duty 1,022 officers and men. Present and absent, 1,221. This does not include the strength of the two colored companies. On July 20 the number present was 1,063.

There was no target practice during the encampment. Companies are provided with ammunition, and have occasional practice at their stations. The State regulations require target practice to be had and reports made.

Pages 48, 49, and 50, Regulations of the North Carolina State Guard, refer to military courtesy. I regret to report that this duty, so necessary to good discipline, was almost entirely neglected. I was pleased to note one company, however, whose members were particular to observe this important duty, and in a very soldierly manner saluted all officers passing. * * *

The conduct of the command was excellent, there was no unnecessary noise, no intoxication, and only one confinement in the guard-house, to my knowledge. The men were at all times cheerful in the performance of all duty, and evinced a strong desire to improve.

I do not believe there is to be found in the United States a better set of men, better armed and equipped, than the North Carolina State guard. * * *

The cavalry company frequently attracted my attention, being a fine body of men; having the undress uniform of the cavalry of the regular Army, they looked more like Regulars than any troops upon the ground. All of their dismounted drills were excellent. It was regretted by all that they could not have attended the encampment mounted.

Two reviews were had during the encampment. July 24 the entire command was transported to the city of Wilmington, upon two trains, consisting of seventeen cars. The brigade was formed, and marching through some of the principal streets gave the governor a marching salute, who reviewed them from the balcony of the Orton House. The troops presented a very fine appearance, and it was a sight long to be

remembered by the citizens of Wilmington. The next day the troops were reviewed at Camp Pender, also by the governor, the commander-in-chief.

In my opinion, the encampment was a success; the twenty-seven companies participating were safely transported from their homes and returned thereto; the interest in the guard has been greatly increased.

* * * * *

RECOMMENDATIONS.

That officers and soldiers of the guard be required to study the Regulations of the North Carolina State Guard, particularly so much of it as relates to "discipline" and "guards."

Guard duty should be practiced during the year; this can be done in the company armories, and at the next encampment there can be no good excuse for ignorance of this important duty.

While at an encampment, to secure a better performance of guard duty, details, both the officers and the men, should be assembled at their regimental headquarters, on the day preceding their tour of guard, and thoroughly instructed in all the details of the ceremony of guard mounting, and the importance of guard duty should there be impressed upon them. Sentinels should be posted immediately after guard mounting, and the members of the guard should be excused from all drills, etc., during their tour, and also be excused from morning drill the day their tour of guard ends.

As little attention is paid to the "setting-up drill" and saluting, all members of the guard should be encouraged to practice at their houses the "setting-up drill" and the manner of making military salutes. Five minutes spent in these exercises each day would greatly improve the one practicing them, and would not be time thrown away.

Companies should, if possible, make two or three short marches during the year from their stations, camp for the day, or, better still, for two or three days, establish guards, have target practice, etc.

Encampments for the entire guard should be held annually, and for this purpose a permanent camp should be secured.

* * * * *

All officers should be permitted to exercise command above their rank; that is, at home the lieutenants should be required to command companies at drill occasionally, and at the encampments the lieutenant-colonels, majors, and captains should occasionally drill their battalions, and also officiate at dress parade.

The command should receive instructions in striking and pitching tents.

A suitable place or room should be provided, with blackboard and chalk, where theoretical instruction could be held for officers and non-commissioned officers.

I can not close this report without expressing my appreciation of the hospitality shown me by all the members of the guard; and also to acknowledge the courtesy and attention received from Brigadier-General Jones, Colonel Cameron, Colonel Olds, Captain Cameron, and others. Nothing was left undone to promote my comfort and pleasure, and every assistance was rendered me in the discharge of my various duties.

* * * * *

Very respectfully, your obedient servant,

CARLE A. WOODRUFF,

Captain, Second Artillery, Brevet Lieutenant-Colonel, U. S. Army.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

EVANSVILLE, IND., *September 3, 1888.*

SIR: In accordance with Special Orders, No. 183, current series, War Department, Adjutant-General's Office, directing me to visit and inspect the encampment of the Indiana State Militia at this place, commencing the 20th and ending the 27th ultimo, I have the honor to report the result of my observations during that period.

The encampment consisted of the First Indiana Infantry, Col. W. S. Ewing, 11 companies, 405 officers and men; Second Indiana Infantry, Col. N. R. Ruckle, 9 companies, 381 officers and men; Third Indiana Infantry, Col. J. E. Kirk, 10 companies, 417 officers and men; First Indiana Artillery, Col. C. G. Conn, 6 companies, 147 officers and men; making a total, including the field and staff of each regiment, of 1,445 officers and men, the whole under the direct command of Brig. Gen. R. V. Kountz, adjutant-general of the State. The camp was situated in a grove immediately outside and east of the city limits. On either side of the open, directly in front

of the grove, the troops were encamped, the infantry on one side and the artillery, with their guns carefully parked, on the other. The camp for the infantry was not laid out strictly according to regulations, although the tents were carefully put up and aligned. The ground and space selected was entirely too small for the number of troops assembled. Water was brought from the city in pipes, affording every facility for drinking and washing purposes. The drainage was not particularly good. The tents were all new, the men using the new pattern common tent and the officers the wall. Straw was furnished the men to lie upon, as protection from the wet and damp ground. The cooking was done by company. The meals were served in tin-ware and eaten from tables under sheds erected for that purpose. Generally company officers took their meals with their companies.

By reason of rain the camp was not fairly established till the afternoon of the 21st, most of the troops in the mean time having been quartered in the city.

On the morning of the 22d drills and other military exercises were at once instituted. Attention was given to the school of the soldier, company and battalion. Much interest by both officers and men was manifested, but, from the circumstances under which the camp was established, these duties were seriously hampered and interfered with. It was the first time for several years that all the companies of the regiments had been together. There are no regimental armories in the State where regiments can be assembled for drills, parades, and other military exercises; in fact, there are no company armories provided by the State, each company renting and paying for its own armory.

The State makes no provision whatsoever for the support or maintenance of its militia. All expenses or outlay of any kind for military purposes devolve upon the organization incurring the outlay. This year, however, the troops were supplied direct from the National Government with their uniforms, consisting of the undress uniform of the Army, and many of the companies in addition had issued to each man a woolen blanket. This clothing was all made by the Quartermaster's Department, in Philadelphia, and is of good and durable quality. The issue was Indiana's allotment of money due the State for the current year from Government for militia purposes.

The State not contributing anything toward the support of its militia, this camp was the result of private enterprise, and the troops were brought here, returned to their homes, and rationed whilst here by private means. A charge of 25 cents was made for persons wishing to enter the camp, which, during the week, was the scene of other attractions than the assembled troops. Booths or tents for the unrestricted sale of beer, and other purposes not conducive to the discipline of the camp, were within the line of sentinels, whose principal and only duties were to prevent persons entering the camp except at one of the gates where money was being collected. This guard was the only recognized guard of the camp, and was conducted and maintained in a wholly irregular and unsoldierly manner. No attempt was made to keep a record of the guard, or the names or number of men of each relief. Men being relieved from post repaired to their companies, taking with them their guns, and promising to return "in time." So far as any instruction the guard or individual members of the the same received during their tour of duty was a matter wholly neglected and set aside. The sentinels were simply posted to keep persons from entering the camp without pay. The mounting of this guard was conducted in the same irregular way.

In two of the regiments, the Second and Third, I noticed on more than one occasion the ceremony of guard mounting being held for instruction. Those concerned seemed deeply interested in what they were being taught and in what they saw.

The artillery had sentinels over their guns, and the duty seemed to be performed in a soldierly and satisfactory manner.

At my inspection on Sunday, the 26th, the troops, with but very few exceptions, presented a neat and clean appearance. Some of the companies were specially so. A few rifles were noted as not clean, but, with these few exceptions, they were all in excellent order.

The men are armed with Springfield rifles, pattern 1873, caliber .45, and many of them are new. Two companies of the Second Regiment are armed with Sharpe's muskets. The kind of cartridge-box in use is the McKeever. They are all in good order, as also most of the waist-belts and plates. The men are not supplied or equipped with knapsacks or blanket-bags, canteens or haversacks. They have no overcoats, none ever having been supplied or issued them.

In the parade of the First Regiment (infantry) for inspection but four companies appeared.

The police of the Second Infantry camp was excellent, reflecting great credit upon its officers and men. In that of the Third Regiment the debris had been swept up, but was not removed. The police of the First Infantry was very bad. The material in all these regiments is of the best, young, intelligent, and ambitious, and too much credit can not be given them for their efforts to be of use as a military adjunct to their State in time of need. It only remains for the State to assist and second them in their laudable efforts.

The drilling of the companies was generally good, and in some instances excellent. The marching, as a rule, was steady and good, the distance between sets of fours well kept, and the alignments and wheels well executed. Battalion drill was perfectly new to most of the officers and men, and, considering the limited time for drill, a marked improvement at the end of the week was to be observed.

In the formation of the regiments for dress parade the companies were generally slow in arriving on line, and the guides more or less backward and awkward in taking their places. This also applies to many of the officers.

There was no target practice at the camp; neither was there any during the past year.

Skirmish drill was practiced to a limited extent.

The artillery consisted of four Gatling guns, caliber .45; three 3-inch Rodmans; and two 12-pound brass pieces. There were limbers to each gun. There was only one caisson, and that is private property. They had no horses, but had seven sets double harness and four sets single. This they used on the occasion of a street parade, with hired horses. The guns, with the exception of the Gatling guns, are old and obsolete, as also the gun-carriages and limbers. The harness is also old, but is in fair condition. This command is in a good state of efficiency, and their drilling excellent. Having no horses, the drilling was confined to the "manual of the piece" and other dismounted movements. The men were all very clean at inspection, and presented a very creditable and soldierly appearance. The camp, also, was clean and well policed. Their mess arrangements were the same as the infantry. The organization of the artillery is the same as the infantry, having twelve companies to each regiment, with one colonel, one lieutenant-colonel, and three majors to each regiment.

The only officer of the supply department on duty at the camp was the quartermaster-general of the State, who ranks as a colonel. He is a bonded officer in the amount of \$300, and is only nominally responsible for property. The tents used by the troops he had charge of, as also other articles of camp and garrison equipage. These stores were all returned to Indianapolis, where they are kept, with other State property, in the State capitol. Should tents or any other stores be needed by a company, the property is issued to the county to which the company belongs. It is then issued to the captain, who is bonded in the amount of \$800.

The adjutant-general's department consists of one adjutant-general with the rank of brigadier-general and one assistant adjutant-general with the rank of colonel. The former, as already stated, was commanding officer of the camp, and the latter was the adjutant-general.

Again referring to the camp, I beg leave to say that had it been established and conducted under different auspices, much good doubtless would have been accomplished. Both officers and men seemed willing and anxious to acquire all the knowledge possible pertaining to their duties, but when the question of military instruction and military exercise becomes subordinate to that of "gate money," the object in view is gravely interfered with, and is utterly lost sight of. Under these circumstances, I do not feel inclined to make any recommendations, as the facts are patent that a radical change is necessary in the militia laws of this State before its militia can arrive at any great degree of efficiency, and that an encampment such as this last is a hindrance to any militia rather than a school for its instruction and advancement.

Very respectfully, your obedient servant,

PAUL HARWOOD,
Captain, Twentieth Infantry.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

FORT PREBLE, ME., *September 6, 1888.*

SIR: I have the honor to invite attention to the following report of an inspection of the National Guard of Vermont, made in obedience to the provisions of paragraph 6, Special Orders, No. 159, Headquarters of the Army, Adjutant-General's Office, Washington, July 11, 1888, and a letter of instruction from the Adjutant-General of the Army, dated July 12, 1888:

ORGANIZATION.

The National Guard of Vermont at the date of this inspection consisted of the following troops:

Brig. Gen. W. L. Greenleaf, commanding brigade.

The First Regiment of Infantry, commanded by Col. Julius J. Estey, consisting of ten companies, * * * having a strength of 543 officers and men on the 21st August, of whom 519 were present for duty.

The Provisional Battalion, consisting of the First and Second Separate Companies, * * * having an aggregate strength of 102 officers and men, of whom 93 were present for duty August 21.

The First Light Battery, otherwise known as the "Fuller Battery," commanded by Capt. and Bvt. Col. Levy K. Fuller, lieutenant-governor of Vermont, with 6 lieutenants and 73 enlisted men, all of whom were present for duty throughout the encampment. This battery has four light 12-pound field-guns, with caissons, and 46 horses.

A platoon of light artillery belonging to the Norwich University, at Northfield, Vt., is a part of the National Guard of the State, but was not present during the encampment.

The total strength of the command present for duty was 720 officers and men. * * * The morning reports showed an average strength present in camp of 97.6 per cent. of the total strength of the brigade, which struck me as being something remarkable.

The ground on which the brigade was encamped was on an elevated plateau, 1 mile east of Newport and a half mile from the east shore of Lake Memphremagog. The camp was supplied with good water by means of pipes running along the rear of the lines of kitchens. Sinks were dug for kitchen refuse in rear of the kitchens and for privies in rear of the ground occupied by the light battery. The tents had been pitched in advance of the arrival of the troops by details of men from each organization.

Brig. Gen. William H. Gilmore, quartermaster-general of the State, had induced the railroad companies to send the trains bringing troops out to the camp ground on the line running past one side of it, where all were quickly disembarked without confusion. The entire command was in camp by noon of the 21st August, at which time I reported my presence to General Greenleaf. By the polite attention of Colonel Fuller, I was assigned a comfortable tent in the battery camp. He also detailed an orderly, who was at all times available for duty in that capacity, and placed a saddle-horse at my service during the encampment.

Brig. Gen. Theodore S. Peck, adjutant and inspector-general, was present all the time and gave me every facility for making the closest inspection of the command.

On the afternoon of August 21 I rode out to witness the work of the First Light Battery. The horses had not been hitched to the carriages since the prescribed drill in June, but they moved out at command without balking, only one pair showing any nervousness. Conceiving that I could be of some service in the way of instruction, I showed all the drivers the proper manner of standing to horse, of coupling and uncoupling the off horse, of mounting and dismounting, of the position of the bridle hand, how to hold the coupling-rein, how to gather the near and the off horse, and how to move forward. They were quick to understand, and showed great interest in all I said.

The exercises of the afternoon were interrupted by rain, but at sunset the weather cleared a little and a dress parade was held, in which the two infantry battalions took part. Previous to parade the guard for the night was mounted. Both ceremonies were creditably conducted.

On the morning of Wednesday, the 22d of August, I made a minute inspection of the First Regiment and the Provisional Battalion, in company with General Peck, who inspected the rear rank while I inspected the front rank of each company. The inspection was by company in the company streets. * * *

On the morning of Thursday, the 23d August, the command marched to the town of Newport and escorted the governor of Vermont, the Hon. E. J. Ormsbee, to the camp, where, in the afternoon, he inspected and reviewed the foot troops. A salute was fired by the light battery on his arrival in camp. By the governor's invitation I accompanied him in this ceremony. The troops appeared well and creditably in all respects. This was followed by an excellent skirmish drill with blank cartridges by Company F, Eleventh U. S. Infantry, Capt. Ogden B. Read, commanding, which conveyed more instruction in practical tactics to the National Guard of Vermont than any quantity of ordinary study of the books could give them. This company arrived in camp on the 21st and remained until the 25th of August, when they broke camp for their return to Plattsburgh Barracks, New York. Their presence was of the greatest use to the troops in many ways, furnishing valuable suggestions of real soldiering. Later in the afternoon I minutely inspected and reviewed, in company with General Peck, the light battery, which appeared in its full uniform. Its performance and appearance were good. It passed in review at a walk and at a trot. On Friday, the 24th August, I inspected the camp grounds, paying particular attention to the condition of the grounds in the rear of the kitchens. All were more or less dirty but one; the rear of the kitchen of Company H, First Regiment of Infantry, Captain Clark, was absolutely clean. During the forenoon I witnessed a battalion drill of the First Regiment of Infantry, under the personal command of its colonel. In the afternoon there was a sort of a sham-fight, and at sunset an undress parade. I took occasion to

visit the sentinels at different times, and on Thursday night accompanied the officer of the day in an inspection of his guard, and heard him imparting instruction in the duties of guards and sentinels in a capable manner. On Friday evening I attended a session of the school for officers, at which I was invited by Colonel Estey to address the officers on such topics as I might select. Captain Read and Lieutenant Hoyt, Eleventh Infantry, were present, and took part in the discussion which followed my remarks, which invited the attention of the officers to the importance of the soldier's elementary instruction, of the "setting-up" exercises, guard duty, and target practice.

On Saturday morning the camp was broken, and by noon all were embarked on their respective trains, the battery loaded on its cars, and all started homewards. Through the excellent arrangements of General Gilmore all this was done without the slightest confusion.

CLOTHING.

The troops are all provided with a fatigue and a full dress uniform. Eight companies of the First Regiment are clad in a handsome and serviceable uniform of cadet gray, with a well-made overcoat and cape of similar cloth. These, as they are worn out, are to be replaced by the blue uniform of the regular service, which is to be the uniform of all the State troops. Two companies of the First Regiment and the two separate companies have now the blue uniform. The gray uniforms are neat, and generally fitted their wearers well. The blue uniforms looked well, but the trousers in many instances were too short, and generally ill fitting.

The First Battery is uniformed in the Army blue. * * * Whenever this battery paraded in full uniform it made a handsome appearance. The whole force may be said to be well uniformed, and all have warm overcoats.

ARMS.

The infantry is armed with the latest model Springfield rifle, furnished with the Buffington sight. The inspection showed that the men do not understand the value of proper care of their arms. The dirt on them was such as would accumulate in a railroad ride of a few hours, and some of the pieces showed rust-marks from the exposure of the wet night and morning preceding the inspection. All the guns that I saw, with one exception, showed good care in the armories, on which depends their preservation from serious injury. The ammunition is carried by the soldiers in the new Frazier cartridge-box. All are equipped with the black leather waist-belt.

TARGET PRACTICE.

Owing to the failure of the legislature to make suitable appropriations therefor, and to the want of safe ranges in the places of the yearly encampments, there has been but little target practice by the troops. Some few of the companies had a limited amount of shooting, but there has been no systematic practice. They have had no gallery practice whatever.

PROFICIENCY IN DRILL.

The infantry companies showed fair proficiency in battalion drill. Marked improvement was manifested from day to day in this matter until the end of the encampment. The first battery showed great improvement from day to day with the other troops. It was exercised daily in the simpler formations. * * * I was informed by Colonel Fuller that on previous occasions it had had practice in firing projectiles whenever a safe range could be secured. Such was not the case at this encampment. The battery harness is old and worn out. Colonel Fuller informs me that he has now in his possession an order for a new set of harness and a new battery of the 3.2-inch field-guns.

THE FIRST BATTERY MOUNT.

This battery is probably one of the best in the volunteer militia, as to its readiness to respond promptly to a call for service. This is owing to the peculiar manner in which its mount is secured. All the horses are owned in Brattleborough, where the battery is located. Whenever it parades or exercises mounted, the pairs are generally used in the same teams and in the same places in teams, and the horses are not strangers to their work. The lead driver of the right piece owns his own team and twenty-two other horses in the battery. The drivers of the pairs are the drivers in their daily work in Brattleborough, and some of the other drivers own their pairs. This element of efficiency is so unusual that I consider it worth noting.

MILITARY COURTESY.

The attention to this important aid to discipline and loyal subordination improved from day to day. On the first day it was largely overlooked. On the last day it was the exception to see an enlisted man pass an officer without saluting him.

SANITARY INSPECTION.

The post surgeon made an inspection of the camp and a report thereof to the brigade commander every day during the encampment.

CAMP EQUIPAGE.

The camp equipage of the whole command is abundant and of fine quality. Most of the tents are new. All the troops were quartered in wall-tents. The mess-tents were large marquees—officers and men messing in the same tent but at different tables. Each company provided its own subsistence out of the allowance of \$2 per diem for each officer and man. The cost averaged about \$1 a day for each person. The company streets were covered by large flies and were kept dry and clean. I have never seen troops more comfortably sheltered.

RECOMMENDATIONS.

The following recommendations are respectfully submitted :

First. That a permanent camp ground be secured for the annual exercises of the Vermont National Guard. Such men as are attracted to the force by the desire to see new places at public expense, and feel no particular interest in military duty, would drop out and leave room for better material. The plan would also be more economical for the State than the one now in use. The experience of New York, Massachusetts, and New Hampshire in this matter ought to be a sufficient argument to induce other States to follow their example.

Second. That systematic instruction and practice in rifle shooting be inaugurated as soon as practicable, and that, as preliminary thereto, a State inspector of rifle practice be detailed; gallery practice, with reduced charges and round bullets, be begun, and suitable appropriations therefor be made by the legislature.

Third. That the period of the annual encampments be extended to eight or to ten days, and that during the encampments less time and attention be given to ceremonies and brigade movements and more to battalion and company drills and skirmish, and some time and attention to target practice. Instruction in skirmishing has been, to a great degree, overlooked. Its increased importance in modern war entitles it to more consideration.

Fourth. It was observed that there was considerable delay in obeying calls to military duty when sounded by the field musicians. It is recommended that promptness be insisted on. It is further recommended that a company officer from each company be required to superintend the policing of company grounds, including those near the kitchens, and that neatness and cleanliness of those places be regarded as of primary importance.

I desire, in closing, to say that I am indebted to Governor Ormsbee, to General Peck, to General Gilmore, and to other gentlemen of the governor's staff, as well as to General Greenleaf and his staff, and to Colonels Estey and Fuller, for the most courteous consideration throughout the time of the encampment.

I am, sir, with great respect, your obedient servant,

PETER LEARY, JR.,
First Lieutenant, Fourth Artillery.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

LINCOLN, NEBR., September 11, 1888.

SIR: I have the honor to submit the following report of inspection of troops of the volunteer militia of the State of Nebraska encamped at Wahoo, Nebr., from September 1 to 8, 1888:

THE CAMP.

The camp was named Camp Sheridan, in honor of the recently deceased General of the Army, and was pleasantly located on rolling ground about three-fourths of a mile

from Wahoo. It was easy of access, as three of the principal railroads of the State, the Union Pacific, Burlington and Missouri River, and Fremont and Elkhorn Valley, run near it, and had built platforms for unloading of troops. Some discomfort was experienced by the troops on the first night by the late arrival of tents, which had been in use elsewhere, but all were safely in tents the following day, and as the weather was clear and dry there was no suffering. Sinks had been dug and the camp ground laid out previously. Water was supplied in barrels from the city water-works, and the supply was abundant.

RATIONS.

For the first time, I think, in the history of the State the troops were supplied with the Regular Army ration, and were to cook it for themselves. At previous encampments they have been furnished commutation of rations and have provided for themselves, but on this occasion it was determined to issue rations in kind. Under this plan there was, at first, some complaint of lack of food, but after a day or two there was no lack among those companies whose officers attended carefully to the requisitions and procuring of their regulation allowance.

ORGANIZATION.

The National Guard of this State now consists of two regiments of infantry, and one separate company, one battery of light artillery, and one troop of cavalry, organized into a brigade, under the command of Brig. Gen. L. W. Colby. Col. O. H. Phillips commands the First Regiment, Col. Franklin Sweet the Second Regiment, Capt. C. M. Murdock the battery, Capt. J. H. Culver the cavalry, and Capt. C. J. Smythe the separate company, the Edward Creighton Guards.

The total number present at this encampment was as follows:

General Colby and staff	11
First Regiment:	
Colonel Phillips and staff	10
Commissioned officers	30
Non-commissioned officers	81
Musicians	18
Band	16
Privates	250
	<hr/> 405
Second Regiment:	
Colonel Sweet and staff	11
Commissioned officers	32
Non-commissioned officers	92
Musicians	17
Band	6
Privates	319
	<hr/> 477
(Edward Creighton Guards attached.)	
Battery A, Light Artillery:	
Commissioned officers	3
Non-commissioned officers	9
Privates	25
	<hr/> 37
Troop A, Cavalry:	
Commissioned officers	3
Non-commissioned officers	10
Musician	1
Privates	28
	<hr/> 42
Grand total	972
Add governor and staff officers	9
Total present	981

The plan of organization is based upon and similar to that of the Regular Army. Each regiment, however, has a surgeon, chaplain, and hospital steward.

ARMS.

The infantry are armed with the Springfield rifle, caliber .45. Those of the First Regiment had the safety-notch; the rifles of the Second Regiment were without it.

The separate company were armed with the Springfield rifle, caliber .50; a number of these guns being still in the possession of the State.

The general condition of the rifles was good, as they have been but a short time issued. They showed some lack of care, and a large number had not been cleaned since they had been fired at a sham battle which had taken place the night before under the direction of General Colby.

ACCOUTERMENTS.

The troops are unsupplied with canteens, haversacks, knapsacks, or blanket-bags, etc. They now have the McKeever cartridge-box, which, with bayonet-scabbards and belts, were in serviceable condition.

THE BATTERY.

The battery had recently received two 3-inch rifles with their limbers and caissons, and also harness for wheel horses of all; but only enough lead harness for the teams of the pieces, so that with but two horses at the caissons it was difficult to preserve either distances or intervals in mounted drill. The guns, harness, etc., were in good condition. The horses were hired for the occasion, and were well handled by the men. The battery needs the remainder of its harness, some additional equipments, and a supply of blankets for horses and men, and will then be in excellent condition as to its outfit. The drill was well executed considering the short time the men are able to devote to it.

THE CAVALRY.

The cavalry company is of comparative recent organization; their sabers, saddles and equipments were new. They desire carbines and uniform saddle-blankets and watering-bridles to complete their equipment.

Though but a short time organized, the general appearance and bearing of the troop was very creditable, and though mounted on farmers' horses they executed the necessary movements of drill with much precision.

CAMP EQUIPAGE.

The tents only were provided by the adjutant-general of the State. All other equipments and cooking utensils, etc., were provided by the companies. Some spades and axes were, however, provided by the State.

UNIFORM.

The uniform of all the troops was that of the fatigue (undress) uniform of the Regular Army. The officers generally wore full dress at parade and review, etc. Gloves were worn by many of the men, but the neglect to provide them on the part of the men of some of the companies, or to wear them on parade, very much hurt the general appearance of those companies.

THE INSPECTION.

The entire brigade was inspected September 6, just following a review thereof by the governor, on whose staff I acted at the time. The general appearance of all the troops was good. There were errors in the execution of part of the movements, which were quickly corrected on attention being called to them. Considering that it is only once a year that there is opportunity for battalion drill, parade, review, etc., their marching, dress, and execution of movements were very well done.

DISCIPLINE.

The discipline was such as usually exists in organizations composed of men of all classes, and in which the private soldier is the equal, in many cases, of the officer in social rank. The time is not long enough to impress upon the minds of soldiers that they ought to respect the rank instead of the individual alone. * * *

INSTRUCTION.

The only instruction given was by drills, and there was a great difference between the drill and discipline as it appeared the first day of the encampment and the last. At its close the improvement was very manifest. General Colby had kept them constantly at work, and the final review on Friday showed better alignments and marching than ever before.

EXAMINATION OF OFFICERS.

The law provides that there shall be an examination of all officers below the rank of major at each encampment. A board was convened for this purpose at this time,

but the results of their examination are not yet known. The questions were printed and answers were in writing. They covered points principally of company drill, and touched upon some of those of battalion drill.

STAFF DEPARTMENTS.

The adjutant-general performs also the duties of quartermaster and commissary general and chief of ordnance, although the quartermaster-general was present and acted as such under direction of the adjutant-general during the encampment. The quartermaster-general, surgeon-general, and aides of the commander-in-chief rank as colonels, the inspector-general as lieutenant-colonel, and judge-advocate-general as major. All of the general staff were present.

RETURNS, BOOKS, ETC.

The adjutant-general has, by law, now a separate office from that of the secretary of state, who formerly performed the duties of both offices, and the records of the office are now in better shape than ever before, at least for years, and with his personal attention thereto the property responsibility is better maintained than before, and proper forms are being introduced. The National Guard of the State has greatly improved in these particulars within the past two years. Regiments now keep a descriptive book and order book. Companies are furnished with descriptive books, clothing books, and order books, and are required to report all drills in accordance with a form furnished from the adjutant-general's office.

GENERAL CONDITION.

Under the encouragement given it by the present governor of the State, General John M. Thayer, who has always, even before the war, been intimately connected with it, and led its first regiment into the field, the National Guard has largely increased in numbers and also in its efficiency. With continued prosperity it bids fair to stand among the best of the country.

RECOMMENDATIONS.

The recommendations that I have to make are but few. Most of the deficiencies are due not to lack of desire to accomplish what is needed, but only to lack of funds to secure the supply. As these become available no doubt the troops will be promptly supplied with all that is necessary. The outfit of the battery needs to be completed, and the cavalry also needs more equipment.

The principal weakness is in the performance of guard duty, and I would recommend that evening schools be established hereafter during encampment and an instructor be secured to explain to the officers the details of this important duty. Any defect in drill or discipline can be directly traced to the officers rather than to the men, and especial care should be taken to secure the instruction of officers uniformly in accordance with tactics and rules and regulations.

The results of the inspection were very satisfactory, and the great interest taken by those present gives good indications for future success.

I am, sir, very respectfully, your obedient servant,

EDGAR S. DUDLEY,
First Lieutenant, Second Artillery.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

DEPOT GENERAL RECRUITING SERVICE, U. S. ARMY,
Columbus Barracks, Ohio, September 20, 1888.

SIR: In compliance with Special Orders No. 137, dated Headquarters of the Army, Adjutant-General's Office, Washington, June 14, 1888, I have the honor to report that I visited the encampment of the National Guard of Ohio from August 23 to September 4, inclusive, and the following is the result of my observations:

The Ohio National Guard is at present composed of one regiment of artillery, eleven regiments of infantry, one company of infantry (Toledo Cadets), and one troop of cavalry (First Cleveland Troop).

The average attendance in camp was about 90 per cent. The equipment is the same in all essentials as the U. S. Army. Clothing is issued by the State, one suit for each enlistment; it is the same as our fatigue uniform, with great-coat and one blanket. Some of the organizations have full-dress uniforms, purchased by themselves. That furnished by the State was found generally in good condition, and in

some cases fitted to the men. There was great lack of uniformity among the officers in regard to uniform; comparatively few in some of the regiments I inspected wore the prescribed uniform complete. This is a matter that could easily be corrected, and would add greatly to the appearance of regiments. Knapsacks, haversacks, and canteens are furnished, and are of good quality.

As to instruction, I am only able to give a general idea of that, as the time allowed for observation was so limited it was impossible to gain positive information. Of course, some regiments were better than others, but I believe all were fairly well instructed in a general way. Naturally a Regular officer would notice a great many mistakes in the minor details, and great pains was taken to correct these.

There were schools for officers and non-commissioned officers daily, and great interest manifested by all, especially in guard duty, which was performed with a good deal of intelligence while on post, but many of them did not seem to think it necessary to remain at the guard-tents. Ample and complete instructions in guard duties are issued in printed circulars, but many officers fail to study them sufficiently to be able to transmit their contents to sentinels.

I minutely inspected the First, Sixth, Thirteenth, and Sixteenth Regiments of Infantry and the troop of cavalry, and found a number of company officers deficient in the common-every-day affairs pertaining to their companies. The First Infantry arms were in a pitiable condition as to cleanliness; they were old, to be sure, but could easily have been kept in better order. They gave as an excuse that they were to have new rifles as soon as this encampment was over. The arms of the other regiments were in a serviceable condition, and a few single ones as clean as I ever saw. The accouterments were generally fairly clean, without being polished.

The discipline, as far as I could judge, was good, especially among the enlisted men. It was naturally very crude, but the men evidently tried to be subordinate and obey all orders as well as they knew how. With two exceptions, the same was observed of the officers, a special order received by a colonel from a major-general commanding the camp was not obeyed as promptly, by any means, as it should have been, and one captain declined at first to obey an order given by his colonel to turn in some tent-flies. These were the only serious breaches of discipline that came to my knowledge.

Comparatively little attention is paid to target practice. About five hundred rounds of ammunition are issued to each company every year, and they are allowed to expend it mostly as they please. There was no target practice during the encampment.

The troop of cavalry was found in excellent condition; arms, accouterments, clothing, and horses all in first-class order. They were well drilled and well instructed in their duties. This troop is composed of the best young men in Cleveland, and I am satisfied, judging from their behavior in camp, should occasion ever call for it, they would prove of great service in the field.

The same may be said of the Toledo Cadets, Champion City Guards, and Wooster City Guards.

The artillery regiment I consider in very good condition; they showed great improvement during the week's encampment, and except for the possible difficulty of procuring a sufficient number of horses, I should say it could be called into active service in an efficient condition with very little delay.

The State furnishes an ample supply of tents; some are retained in hands of regiments and others are issued temporarily, as necessity requires.

Each organization provides its own cooking utensils, table ware, etc. All were well supplied.

The supply departments are concentrated in the adjutant-general of the State. For this encampment Major Guitner, of the Fourteenth Infantry, Ohio National Guard, was announced as quartermaster-general, and as such had charge of the subsistence department. Supplies were purchased by him and issued to regiments at the camp in an entirely satisfactory manner. The law provides that regiments who desire it may take the money allowance and provide their own rations, which I suppose would be done in case a single regiment was ordered into active service. So, with the allowance of 40 cents per day for each man, I should say all or any portion of the Ohio National Guard could be put in condition for active service, as far as subsistence is concerned, with the utmost promptness.

The medical department, under the very able direction of Brig. Gen. Adolphus E. Jones, was well supplied, and great attention paid to all the details pertaining to that department. I consider it in a very satisfactory condition.

This is the first year the Ohio National Guard has had a general encampment, and, everything considered, I believe it proved a success, and in many ways more beneficial than regimental encampments. The troops were all in camp by retreat of the first day, so that drills, parades, and schools were taken up and continued without interruption until the last day. Some of the brigade dress parades and reviews would have done credit to an old army.

I think the present laws for the government of the Ohio National Guard are faulty in not providing for at least one general officer, with a suitable staff. This year General Axline, whom I think is entitled to great credit for the judgment he displayed in selecting and preparing for occupancy the camp ground, and for his general conduct of affairs during the encampment, was assigned to the command. Being a staff officer, he had no regular staff, and the officers assigned to duty with him as such, with one or two exceptions, of course knew nothing of the personnel and materiel of the Ohio National Guard, and consequently he was obliged to give his personal attention to many of the minor details that usually would have been attended to by a staff officer. I volunteered to perform the duties of acting assistant adjutant-general, but my other duties and want of experienced clerks and assistants rendered it very unsatisfactory. For Regular officers to be of any material benefit of a general encampment of this magnitude, at least one to each regiment and one to act as acting assistant adjutant-general should be detailed, in order that they might observe, correct, and instruct in every detail as it occurs, which is manifestly impossible with three officers for thirteen organizations.

In conclusion, I desire to acknowledge the uniform kindness, consideration, and hospitality shown me by all officers of the Ohio National Guard.

I am, sir, very respectfully, your obedient servant,

W. L. KELLOGG,
Major Nineteenth Infantry.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.

COLUMBUS, OHIO, September 13, 1888.

SIR: In compliance with paragraph 13, Special Orders, No. 137, from Headquarters of the Army, Adjutant-General's Office, Washington, June 14, 1888, accompanied by letter of instructions, I have the honor to submit the following report of my inspection of the annual encampment of the Ohio National Guard from August 28 to September 4, inclusive:

The camp ground, comprising about 500 acres, was beautifully located on a gentle slope in the valley of the Olentangy River, about 5 miles north of Columbus. To this point I proceeded at the time specified and reported to the adjutant-general commanding the camp. The officers detailed by the War Department were assigned to duty as assistant adjutants-general on the staff of the commanding general, and furnished with quarters and mounts. The camp consisted entirely of wall-tents, except a few of larger proportions used by the general staff and some of the field officers. All tents were pitched by advance parties, and were arranged in the form of a semi-ellipse or horseshoe; the artillery on the right, followed by the infantry in the order of rank of colonels.

The headquarters of the commanding general were located across a deep ravine on the exterior of the circle, the drill and parade grounds being on the opposite or interior side. The camp was designated "Camp Phil. Sheridan," in honor of the late General of the Army.

The cavalry (one troop) was encamped near general headquarters.

STRENGTH.

The command consisted of the following-named organizations:

	Present for duty.	Absent with leave.	Absent without leave.	Sick.	In arrest or con- finement.	Aggre- gate.
First Light Artillery.....	527	51	20			598
First Infantry.....	355	27	34	3		419
Second Infantry.....	424	11	43	8		486
Third Infantry.....	422	12	17	2	1	454
Fifth Infantry.....	426	23	38	1		488
Sixth Infantry.....	389	39	3	1		422
Eighth Infantry.....	443	11	6	3		463
Ninth Infantry.....	153	2	14		2	161
Thirteenth Infantry.....	327	40	25	1		393
Fourteenth Infantry.....	528	17	25	1		571
Sixteenth Infantry.....	340	21	25	5		421
Seventeenth Infantry.....	495	28	7	2		532
First Troop Cavalry.....	51					51
Grand aggregate.....	4,881	282	257	27	3	5,450

The Fourteenth Regiment, located in and near Columbus, was the first to arrive in camp, reaching the ground about 10 a. m. The other regiments continued to arrive during the day, and all took up the routine of camp life with little confusion or delay. Fuel, forage, and straw were furnished by contract and delivered at the camps of the various regiments before their arrival. Horses for most of the batteries were, in like manner, supplied to most of the organizations upon their arrival. Those for the cavalry, and for Batteries E, F, and H, were brought with them.

SUBSISTENCE.

The statute of Ohio allows to each officer and man a commutation of 40 cents per day for subsistence. Heretofore it has been customary to transmit the funds direct to the regimental or company commanders, by whom subsistence was provided for the men. On this occasion a general commissariat was established, Maj. H. A. Guitner, Fourteenth Infantry, assisted by Lieutenant Smith, regimental quartermaster Seventeenth Regiment, being detailed as chief commissary and quartermaster. The commissariat was abundantly supplied, and after the first day or two seemed to work smoothly and with general satisfaction. * * * Messing was by companies; officers and men generally together, regimental headquarters separate. The cooking was done in almost every conceivable manner; camp-fires, stoves, ranges, and gasoline and oil burners being found in the various companies and regiments.

TRANSPORTATION.

Two batteries marched to camp, Battery E, Captain Kennan, marching 54 miles from Springfield, and Battery H from Columbus. With these exceptions all the troops were carried to camp by rail, the Cleveland, Columbus, Cincinnati and Indianapolis Railroad Company having established a station and side-track near by for the use of the camp. Communication was maintained with the city by means of telephone and telegraph, and two staff officers were charged with the delivery of the mail.

WATER.

The water was excellent, and sufficient for drinking and cooking. It was drawn from a number of springs, the outlet of which formed a small stream across which several dams were thrown. * * *

POLICE.

The police of the camp, excepting the sinks, was very good. It was made the duty of the field officer of the day to exercise a general supervision over all matters of police and discipline. This duty seemed to be efficiently performed, Lieutenant-Colonel Montgomery, Seventeenth Regiment, and Lieutenant-Colonel Coit, Fourteenth Regiment, deserving special mention for their vigilance and energy. The sinks, two to each regiment, were not deep enough, and were generally neglected throughout the camp. Garbage was buried or hauled away, and company streets were kept clean. In nearly all the infantry companies the kitchens and mess-chests were in good condition. * * *

UNIFORM, ARMS, AND EQUIPMENT.

The uniform, with the exception of the State button, is the same as that of the Army. It does not seem to be of as good material, and in several instances company commanders called my attention to the fact that it was not securely made. Its general appearance, however, was neat and clean.

The arms consist of the .45 caliber Springfield rifle, and the artillery are supplied with Napoleon and 3 inch guns and Gatlings. Each soldier is furnished with a knapsack, haversack, and canteen, and nearly all are now supplied with overcoats and blankets. The quality of the latter is inferior to those issued to the Army. They may, however, be pronounced serviceable.

INSTRUCTION.

Daily schools were held in each regiment—for officers at 7.30 a. m., and for non-commissioned officers at 1.30 p. m. These seemed to be generally well attended, though not in all regiments with equal interest. These differences were traceable to the commanders of regiments, the more efficient having a full attendance, and generally being present themselves. I personally attended as many of these schools as possible, and

believe all there assembled were earnest and anxious to learn. Too much attention seems to be paid to the finer distinctions of the drill-book to the neglect of other not less important matters of guard duty, discipline, and customs of the service. A microscopic examination of the drill tactics is only necessary to those who aspire to excellence in competitive drills, which should have no place in a camp of instruction, where every moment of time is valuable and every energy should be bent toward improving it.

Drills occurred twice each day, and were very creditable. The Second Regiment, Colonel Howe commanding, shows marked improvement over last year in this regard, and with a little more vim and energy in its field officers will become one of the best organizations in the State. With the exception of two regiments, the Sixth and Ninth, the drill of the other battalions seemed like that of veterans, with here and there an occasional inefficient captain to mar the beauty of the evolutions. Very little attention was paid to battalion skirmish drill, a serious omission in view of future fire tactics. Several of the regiments drilled with drums, being apparently unable to march in cadence without having the time indicated. * * * I did not find opportunity closely to observe the drill of the artillery; from what I saw I would pronounce Batteries E and F well disciplined and instructed. One company, B, Capt. F. C. Bryan, of the Eighth Regiment, drilled well as skirmishers by means of whistle signals sounded by the captain.

DISCIPLINE.

The discipline of the camp was generally very satisfactory. Probably the most conspicuous defect of the National Guard is the frequent neglect of courtesies and deference to rank and authority. Decided improvement, however, is noted over last year. I passed continuously through the various regiments from reveille till after taps, and everywhere observed men saluting where last year scarcely a recognition would be received in an entire company. This is not the fault of the men, all of whom seem to be actuated by the true military spirit, and most of whom would prefer a commander who knows his business and enforces a strict and even rigid discipline throughout the command. * * *

In the First, Fifth, Fourteenth, and Seventeenth Regiments, reveille, tattoo, and taps were well observed. In other regiments less attention was paid to the form as prescribed in paragraph 814 of the infantry tactics, while in others again no roll-call was had at all, and no report made to the adjutant or commanding officer. * * *

HOSPITAL CORPS.

Each regiment was required to organize bearer companies, but only one, the Fourteenth, seems to have complied with the order. I witnessed the drill of this detachment, under the instruction of Assistant Surgeon Taylor, U. S. Army, in the presence of the medical officers of the command. All appeared much interested, and this much-needed instruction will doubtless prove of positive benefit to the National Guard.

RIFLE PRACTICE AND SIGNAL DRILL.

These subjects received no attention in Camp Sheridan. I discovered, however, much interest in rifle practice among the officers and men of some companies in the Sixteenth Infantry. Nearly all the companies have a day or two of practice at short ranges once or twice a year, generally on legal holidays. Ample facilities for a fine range could have been found at Camp Sheridan, and this important feature of the soldier's education should have received more attention.

GUARD DUTY.

A provost marshal, Col. W. S. Wickham, was detailed for the camp, assisted by Captain Holmes, of the Fourteenth Regiment; also a field officer of the day and a field officer of the guard. This duty seemed to be intelligently performed, and was quite necessary in view of the crowds of visitors who thronged the camp each day. The interior or police guard duty of each regiment was generally well done, especially in the First, Third, Fifth, Fourteenth, and Seventeenth Regiments. In others sentinels were more often found ignorant of their duties; in the Fifth Regiment I noticed a sentinel marching his post at the cadence of about 120 steps, and in the Sixteenth some were observed to halt with precision, come to a carry, about face, resume the right shoulder, and again take up the measured tread. These defects, and others of a more serious nature, can only be cured by instruction in armories during winter months. The tendency in many companies seems to be to make a fine display at ceremonies and on company drill, to the entire neglect of the graver and more important duties of the sentinel. As a rule, it was observed that those companies which attached the greatest importance to exhibitions of this character were the most deficient in dis-

cipline and guard duty. It may be of benefit to these organizations to quote here the remarks of the Adjutant-General of the Army in his annual report for 1866: "Exhibition drills, while interesting as showing to what degree of mechanical precision a body of men can be trained to attain in movements and motions, are an undesirable feature of military camps. In many instances the development of extreme smartness in drill involves the neglect of some of the most important and solid parts of a soldier's training."

INSPECTION.

It being impracticable for each officer detailed by the War Department personally to inspect the entire command, this duty was divided and announced in orders, the Fifth, Eighth, Ninth, Fourteenth, and Sixteenth Regiments being assigned to me.

FIFTH REGIMENT.

This regiment, consisting of eight companies, is commanded by Col. F. H. Flick, a soldierly, energetic disciplinarian of excellent command. Owing to some misunderstanding or disregard of orders, about one-half the band failed to appear at inspection. There was also some confusion in forming, requiring sixteen minutes to get the regiment into line. I noticed, however, that at all subsequent formations this regiment was usually prompt and the first on the ground. The general appearance of the line was very fair, but upon closer inspection many of the men seemed to lack the necessary preliminary training. More attention should be paid in this regiment to the setting up exercises.

The clothing of the Fifth Regiment is old and shabby in most companies, and should be replaced. Cap devices and buttons were often missing, and the blouses were ill-fitting. The arms are old, have never been remodeled, and were not properly cleaned. It was agreeable to note exceptions here and there, and to find not only the rifle clean and bright, but the brass parts of accouterments and the buttons and cap devices polished and shining. The manual of arms is good, except inspection arms, which lacked precision and vim. The step in marching in this and all other troops assembled in Camp Sheridan, except the Toledo Cadets and Companies B and D, Eighth Regiment, was too slow. The quarters of the Fifth Regiment were excellent. * * * I carefully observed guard mounting and the relief of the old guard in this regiment, witnessed the transfer of prisoners and the report of the officers of the day to the colonel commanding, all of which were highly creditable.

EIGHTH REGIMENT.

The Eighth Regiment consists of seven companies commanded by Col. G. R. Gyger, one of the most competent battalion instructors in the State. I watched the drill of this regiment on several occasions, and can pronounce it one of the best in the camp. The non-commissioned officers' school was conducted by Maj. C. W. F. Dick, a very intelligent, studious, and zealous officer. The regiment being already formed, I proceeded at once with the inspection. Three companies—A, Captain Volrath; B, Captain Bryan; and D, Captain Clemens—were found to be in very fine condition in all respects, well set up, uniforms neat fitting, accouterments well adjusted, and marked, brass parts generally bright, men clean shaved, shoes polished, manual vigorously executed, and officers discharging their duties intelligently and without hesitation. The arms of the entire regiment were in serviceable condition, generally clean, and the clothing well cared for. Only one company, B, has a complete regulation dress uniform. The quarters were generally neat and comfortable, from four to six men occupying a tent. * * * The tents were well pitched and the police good. Officers and men used the same sinks, which were in very bad condition.

NINTH BATTALION.

This organization consists of three companies of colored troops. The arms, accouterments, clothing, and quarters of this command were exceptionally clean, and in Company C boots were polished and the men fairly well instructed. The canteen and haversack were not always slung according to regulations, tents were not properly pitched, and the police of company streets was neglected.

FOURTEENTH REGIMENT.

This is the largest regiment in the State, consisting of eleven companies, under the command of Col. George D. Freeman, who has held his present commission over ten years, and is a thorough soldier and capable commander. The regiment was promptly formed for inspection, and its general appearance was very fine. The arms, accou-

terments, and uniforms of four companies of this regiment were destroyed by fire during the past year. These companies appeared with an entirely new equipment, their rifles being provided with the Buffington sight. With the exception of two companies, almost every man was fairly well set up, and standing properly at attention; leather of accouterments was blackened, brass parts polished, cap devices and buttons bright, clothing neat fitting, boots shining, and men clean shaved. The manual was well executed throughout, tents were well pitched and floored, and police excellent. Line officers and men used the same sinks, which were very offensive. The surgeon informed me that disinfectants had been furnished, but not in sufficient quantity. Regimental commanders should have been held responsible in this detail, which was generally neglected. The guard duty in this regiment was well performed, sentinels seldom failing to salute and challenge in proper manner. The Fourteenth Regiment enjoys an enviable reputation in the State, has an efficient and zealous complement of field and staff officers, and may justly be pronounced one of the best military organizations in the country.

SIXTEENTH REGIMENT.

Eight companies compose this regiment, commanded by Col. C. M. Keyes, a soldierly gentleman of fine presence. I was not able to see this regiment drill, but its formation for inspection was very prompt, and its appearance, with some exceptions, good. Several officers were observed with dress belts over blouses, and others with shoulder-straps on dress coats, the men in ranks wearing blouses. * * * The arms of this regiment are old and hardly serviceable; they were, however, quite clean, and in three companies—A, Captain Weirer; H, Captain Rogers; and I, Captain Winnie—the brass parts were clean and bright, and the men well prepared for inspection. The manual of arms at inspection was not well executed, some men informing me that they had never been drilled in this part of the manual. The accouterments were in good condition, properly marked and slung, and the officers apparently familiar with their duties. The quarters were well kept, some tents being provided with floors; police, except between two companies, was found to be excellent; and the sinks were in the usual foul condition. I would suggest to this and other regiments that more attention be paid to the first thirty pages of the tactics; that no man be allowed to touch a gun until he is thoroughly set up and drilled in the facings, alignments, and steps. A manual of guard duty and practical instruction of sentinels and of individual soldiers in rising, standing attention, and saluting is much needed. In the Third Regiment a guard manual was placed in the hands of every soldier; captains should, however, go further even than this, and see that the men study the book and can practically apply its teachings. Without practical instruction the occasional soldier will be awkward and hesitating.

CEREMONIES.

These were well performed. Many of the subalterns and non-commissioned officers were new to their places, having been but recently appointed. This furnishes an additional argument for thorough instruction in guard duty in armories. It is too late to learn after coming to camp. * * * The last three afternoons of camp were devoted to parades and reviews of the entire force, under command of General Axline. These ceremonies were witnessed by Governor Foraker, Governor Lounsbury, of Connecticut, and other distinguished visitors. The troops presented a fine appearance, marched well, though too slow, and the officers, with but two exceptions, rendered the proper salutes. The artillery was remarkably well handled, considering the brief time the horses had been in training, and the cavalry troop, which acted as the governor's escort, gave some fine exhibitions of mounted drill and horsemanship. * * *

On the last day of the encampment, September 4, the opening day of the Centennial Exposition, the entire command was taken to the city, the infantry by rail, formed for a street parade, and again reviewed by the governor. This parade was entirely successful, and afforded the people an opportunity to see the citizen soldiery of the State. The encampment may be pronounced a very profitable one, especially to the officers, who here had the benefit of contrast and comparison with other regiments. Few regiments, however, are prepared for the advanced instruction appropriate to brigade or division encampments, and nothing in the nature of such evolutions was attempted. For some years to come the best results will probably be found in regimental camps.

In conclusion, I desire to express my thanks to the adjutant-general and other officers of the Guard for courtesies extended, and to Colonel Stuckey, of the governor's staff, for his kind and polite assistance. * * *

I am, sir, very respectfully, your obedient servant,

A. C. SHARPE,
First Lieutenant, Twenty-second Infantry.

THE ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

COLUMBUS, OHIO, *September 23, 1888.*

SIR: I have the honor to report that, in compliance with Special Orders No. 183, dated War Department, Adjutant-General's Office, August 8, 1888, I proceeded to Camp Phil. Sheridan on the 27th of August, and reported for duty to Maj. Gen. H. A. Axline, adjutant-general of Ohio, who had been assigned to the command of the camp by Governor Foraker. I remained in camp from the time of reporting until the camp was broken, September 4, 1888.

- Under orders from the governor all the militia, consisting of ten regiments and one battalion of infantry, one regiment (eight batteries) of artillery, and one troop of cavalry, were concentrated at Camp Sheridan, 1 mile north of Columbus, instead of being encamped by regiments or brigades, as heretofore. Average number present 7,975, of 90 per cent. of the whole National Guard.

The ground selected for the camp by General Axline was excellent in every respect but one—there were no bathing facilities for the men. The camp was formed in a semi-circle, the artillery on the right and the infantry on the left. The cavalry troop was camped near and on the right of General Axline's headquarters. The grounds were extensive, there being sufficient room for all the troops to drill at the same time without interference. Details of camping parties were made from each regiment, and these details arrived several days in advance of the regiments to which they belonged, and erected the tents for their commands. Wall-tents were provided for all company officers and enlisted men, and for all field officers who did not furnish their own tents.

All the troops arrived in camp during the 28th of August, the last command arriving at about 8.30 p. m. The 28th and part of the 29th were employed in placing the regimental camps in good order. * * * Battalion drills were had twice each day by the infantry, company drill by the cavalry, and battery drill by the artillery on Tuesday, Wednesday, Thursday, and Friday, and once each day on Saturday and Monday. On the afternoons of Saturday and Sunday a parade of the three arms united was had, followed by a review, which was received by Governor Foraker.

On Monday the governor inspected all the troops, and the inspection was followed by a review. The parades and reviews were excellent, the marching of the troops very good, and their appearance soldierly. The only criticism I have to make is that the cadence of the step was altogether too slow.

On account of the number of regiments to be inspected and the limited time at our disposal, and the fact that we had accepted temporary appointments on the staff of Governor Foraker and General Axline, with a view to being as useful as possible during the encampment, Maj. W. L. Kellogg, Nineteenth Infantry, First Lieut. A. C. Sharpe, Twenty-second Infantry, and myself decided to divide the work of the formal inspections. In doing this the inspection of the Second and Seventeenth Infantry Regiments and the First Light Artillery were assigned to me.

The organization of each regiment is complete in field and staff, and after the 29th of August I heard no complaints of failure to supply the troops with anything essential to their health or comfort. Maj. Henry A. Guitner, Fourteenth Infantry, Ohio National Guard, was acting quartermaster-general and commissary-general of subsistence. He performed his duties in an energetic and able manner. Rations were daily drawn by each regimental quartermaster and distributed by him to the companies of his regiment.

As Capt. Blair D. Taylor, assistant surgeon, U. S. Army, has made a report in regard to the arrangements and workings of the medical department, which was under the charge of Brig. Gen. A. E. Jones, surgeon-general Ohio National Guard, I will only say that each regiment had a surgeon and assistant surgeon, and was furnished with an adequate supply of medicines by the surgeon-general.

The general health of the command was good. One man of the Seventeenth Infantry died of epilepsy, but there was no serious illness due to the encampment. The average number on sick report was sixty-six; the average number in arrest or confinement was seven.

As a rule, discipline was fairly well maintained, but the camp regulations were not always strictly observed, and it was not an unusual thing to hear music after taps. Some of the officers of one of the regiments of infantry were for a time in a state of insubordination, disinclined to obey an order from headquarters, and several of them tendered their resignations. Discipline was soon restored and no further difficulty of the kind occurred among the infantry. One of the artillery officers showed a similar spirit of insubordination, growing out of the same order, but it was promptly suppressed by the colonel of the regiment. Generally speaking, the discipline was good, much better than I expected to see it.

Guard duty was fairly well done, and the sentinels were attentive to duty and watchful, although not always fully instructed.

- The only uniform furnished by the State is a fatigue uniform identical with that worn by the U. S. Army, with the exception of the button, which is stamped with the coat of arms of the State. The uniforms were in a serviceable condition. The only time I saw the whole command in heavy marching order was on the 4th instant.

when the troops broke camp and took part in the opening ceremonies of the Ohio Centennial. On this occasion they presented a serviceable and creditable appearance. Some of the regiments have dress uniforms provided at their own expense.

On August 30th, under orders from General Axline, I inspected the police of the camp, and found it, as a rule, in fair condition. In most companies sinks had been dug for the refuse from company grounds and kitchen. Earth was thrown over this refuse once or twice daily. The police in some of the regiments was not good. The attention of the commanding officers, or, in their absence, the officer of the day, was called to the neglect, and it was corrected. The police improved during the encampment. As a rule, the company kitchens and mess-tents were found in fairly good condition.

On the 29th of August I took charge of the officers' school of the Seventeenth Infantry, and talked to the officers regarding the encampment, their duties as officers, and answered questions in regard to customs of service, etc. In the afternoon I took charge of the non-commissioned officers' school of the First Artillery, and explained to them their duties and gave them some instructions about harness drill, customs of the service, etc.

On the 31st of August, at 2 p. m., I inspected the Second Infantry, Ohio National Guard, Col. James C. Howe, commanding. The regiment did not form promptly, owing to the delay on the part of some of the captains in marching their companies on to the line; some of the captains stepped in front of their companies while dressing them; knapsacks, canteens, and haversacks were not worn at inspection, but were examined when inspecting the company grounds. Some of the companies were not furnished with haversacks. The men were in fatigue uniform, which was serviceable and generally in fair condition. The regiment is armed with the Springfield rifle, caliber .45. The arms were not in good condition, many of them rusty, and some almost unserviceable; those of the right company were in bad condition. The color company presented the most creditable appearance of any company in the regiment. The company grounds, tents, mess-tents, and kitchens were in good order and clean. Sufficient earth had not been thrown in the men's sinks. The drill of the regiment was creditable. I heard many compliments paid Colonel Howe on the improvement he had made in the drill and discipline of his regiment during the past year. He is a competent and energetic officer. Eighty-four per cent. of regiment were present for duty. Two officers were absent, one with leave and the other sick.

At 4.30 p. m. I inspected the Seventeenth Infantry, Col. Edgar I. Pocock commanding. The regiment was in fatigue uniform, and in heavy marching order. I did not see it form, as Colonel Pocock had prepared it for inspection while awaiting my arrival. The uniforms were in serviceable condition. The arms, Springfield rifle, caliber .45, were most of them of the latest model; they were in serviceable condition, and in most of the companies were fairly clean. The arms of the flank companies were in good condition and very clean; their condition reflects credit upon the captains of these companies. The camp was found in good order, tents clean and well arranged. The grounds occupied by some of the companies of this regiment were low and damp, but the company grounds were clean and in good order. Sufficient earth had not been thrown into the men's sinks. Ninety-four per cent. of the regiment were present for duty. The discipline and drill is good. The regiment has the reputation of being one of the most reliable in the National Guard of the State. Colonel Pocock served in the volunteer forces during the late war, and is a competent and energetic officer.

The First Regiment of Light Artillery consists of eight four-gun batteries. * * *

On the 1st and 3d instants I inspected the batteries in the order given below. All were first inspected mounted, and afterward dismounted in the company streets.

Battery D: This battery is armed with two Gatling guns, model 1853, and two 3-inch rifles. The guns were in good condition; sponges were not in serviceable condition; harness requires overhauling; it had not been blackened. A number of errors were made in forming the battery for inspection. The uniforms were generally serviceable, though some of them have been in use for from three to five years. The battery was only fairly drilled at standing gun drill. At inspection in battery street the grounds and tents were in good condition.

Battery B: This battery is armed with four Gatling guns, model 1853. The guns were in excellent condition; harness worn, and some of it borrowed for the inspection; the drivers did not wear sabers. The captain of this battery has only been in command since June 8, since which time he has recruited about three-fourths of the present members. The men were fairly well drilled. A few errors were made in preparing the battery for inspection. At inspection in battery street the grounds and tents were found in good condition; uniforms generally serviceable; sabers in good condition.

Battery G: This battery is armed with four 12-pound Napoleon guns, which were found in good condition; carriages not recently painted; harness in fair condition. The battery drilled well and is in serviceable condition. At inspection in battery street the uniforms were found to be in serviceable condition, sabers in fair condition, and grounds and tents in good order.

Battery H: This battery is armed with four 6 pound bronze guns, which were in good condition; the carriages were very dirty; harness not in good order; old rope halters on some of the horses. Battery not well drilled (attributed by the captain to the absence of a number of his men); uniforms old and worn; a number of the men in ununiform trousers. A number of errors were made in preparing the battery for inspection. At inspection in battery street the sabers, grounds, and tents were in fair condition. New halters were drawn before leaving camp, September 4, 1883.

Battery A: This battery is armed with four 3-inch rifles, which were found in fine condition; carriages clean; drill good; harness serviceable, but not in first-class order. At inspection in battery street the grounds and tents were in good order, sabers clean, and uniforms serviceable.

Battery C: This battery was armed with two Gatling guns, model 1883, and two 3-inch rifles. The captain of this battery met with a severe accident on the day after his arrival in camp, which prevented him from taking active command of his battery, although he remained with it and kept a general supervision over its affairs. A number of errors were made in preparing the battery for inspection. The guns and carriages were clean and in serviceable condition; drill poor; harness in good condition. At inspection in battery street the grounds, sabers, and tents were found in good condition and uniforms serviceable.

Battery F: Armed with two 3-inch rifles and two 6-pound bronze guns. Guns and carriages were found in good order and serviceable condition; harness worn; no halters; drill only fair. A number of errors were made in preparing for inspection. Tents clean and well arranged; grounds in good police; sabers in fair condition.

Battery E: This battery was in excellent condition; guns and carriages clean; officers and men in their proper places, and every man with clean gloves; well drilled; harness in fair condition, but some repairs are required. At inspection in battery streets the sabers were not in good condition; the grounds and tents were clean and in good order; uniforms clean, but many of them badly worn, having been in use about five years. This battery, which belongs in Springfield, marched from home into camp, being two days on the march. It arrived in good condition, and the benefit derived from its march was evident at once. The horses and the drivers were broken in, and the battery derived the maximum amount of benefit from the encampment. It has been the practice for several years to march into camp, and the result shows that the example could be followed with advantage by the other batteries, when practicable.

On the 3d instant I inspected the band, which was in fine condition; uniforms clean and serviceable, and instruments in excellent order.

Twice during the encampment I inspected the stables. They were not in good order. This was largely due to the fact that the owners of the horses sent men with them to take care of them, and they took but little interest in keeping the stables clean. The stables on the left flank were in fair condition, and those of two of the batteries were clean and neat at the second inspection.

With one exception, each battery had its own mess-tent and kitchen. These were found in excellent condition.

On the 2d and 3d instants I mustered the artillery. Eighty-eight per cent. were present for duty. The discipline of this regiment is excellent. Guard mounting and dress parades were well conducted. Guard duty was fairly well performed. Officers and men are, as a rule, very attentive to military courtesies. The officers generally appeared to be attentive to duty and soldierly in their bearing. As the horses for the batteries were hired for the period of the encampment, and the drivers and cannoneers were nearly all unaccustomed to mounted drill, I regard the proficiency reached by most of the batteries at the close of the encampment as highly creditable to both officers and men. The result attained could not have been reached without great care intelligently directed. Colonel Smithright and the field and staff of the regiment are competent officers, energetic, and interested in their work, and great credit is due them for the high standard which prevails in the regiment.

I would recommend that all the harness be thoroughly overhauled and repaired, and that, whenever practicable, target practice be required. None has been had since the encampment of 1887.

I regret that I was unable to devote more time to the inspection and instruction of this regiment. All officers and men seemed anxious to improve and willing to receive suggestions. It would have been better had I been able to devote myself entirely to the artillery.

In conclusion, I will say that I regard the encampment as a success in every particular. The National Guard is a fine body of men, of whom the State may justly feel proud.

I desire to acknowledge the many courtesies received by me from General Axline and the officers of the regiments which I inspected.

Very respectfully, your obedient servant,

CHAS. E. KILBOURNE,
First Lieutenant, Second Artillery.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

MOUNT VERNON BARRACKS, ALA., August 20, 1888.

SIR: I have the honor to submit the following report of inspections of the Alabama State Troops, made in compliance with paragraph 12, Special Orders No. 119; paragraph 11, Special Orders No. 138, and paragraph 14, Special Orders No. 151, current series, from your office. I was present during the entire period of encampment of each regiment, and, in company of Col. S. L. Lawson, State inspector-general, made a regular inspection of every company, battery, and troop under arms, and of its quarters in camp.

ORGANIZATION.

The Alabama State Troops, which is the designation by statute of this volunteer militia, consists of three regiments, each composed of ten companies of infantry, one battery of artillery, and one troop of cavalry. The details of organization follow, as far as practicable, that prescribed for the U. S. Army.

The First Regiment, Col. Price Williams, jr., nine companies of infantry and one battery of artillery, encamped near Mobile, June 11 to 18; the Second Regiment, Col. Thomas G. Jones, ten companies of infantry, two batteries of artillery, and one troop of cavalry, near Montgomery, June 21 to 28; and the Third Regiment, Col. S. W. John, six companies of infantry and one battery of artillery, near Selma, July 12 to 19. The camping grounds were well selected, affording supplies of wood and good water, as well as drainage. Companies are assigned to regiments with more regard to facility of concentration by railroad than to geographical position. With one exception, each company could report ready for service at its regimental headquarters within twelve hours after the receipt of telegraphic orders to that effect. The companies of the First and Second Regiments were regularly mustered into the State service for three years, as required by the new military law.

The following table exhibits the average strength of each command during its encampment:

Troops.	Present.		Absent.		Total present and absent.		Aggregate.	Per cent. in attendance.
	Officers.	Men.	Officers.	Men.	Officers.	Men.		
First Regiment.....	42	331	3	130	45	461	506	74
Second Regiment.....	29	243	5	261	34	508	540	50
Third Regiment.....	22	140	3	150	25	290	315	56
Battery A.....	4	24		26	4	50	54	52
Battery B.....	4	35		7	4	42	49	85
Battery C.....	3	17		11	3	28	31	64
Battery D.....	2	11	1	17	3	28	31	42
Troop A.....	3	23		17	3	40	45	60
Total.....	109	824	12	621	121	1,415	1,566	60

* Troop B, First Regiment, disbanded and replaced by a promising troop. Troop C, Third Regiment, unorganized.

INSTRUCTION.

(1) *Drills and ceremonies.*—The companies of the different regiments drilled at various times during the day at company drill, and, with few exceptions, showed reasonable proficiency therein. Among the best-drilled companies may be mentioned the Lomax Rifles, Captain Davis; the Mobile Rifles, Captain Wheeler; the Mobile Cadets, Captain Semmes, in the First Regiment; the Montgomery Greys, Captain Jones, and the Montgomery True Blues, Captain Bibb, in the Second Regiment; and the Pettus Rifles, Captain Wilkins, and Selma Guards, Captain Canning, in the Third Regiment—organizations which have proved themselves among the finest drilled companies in the United States upon many a hard-contested competitive drill-field.

Company skirmish drill is generally neglected, but its practical importance seems to be fully realized by the higher commanders. Each company commander should be required to drill his company at least once a month in this drill before coming to the next camp. The Lomax Rifles, First Regiment, Capt. Frank P. Davis, gave two excellent skirmish drills, which did much to arouse the military interest of the other companies of that regiment.

Battalion drills were held almost daily in each regiment, with manifest improvement toward the last. The drill of the First Regiment was first class, the colonel, who is a fine tactician, placing his command in any position on the large drill ground with promptness and precision. That of the Second Regiment was good. That of the

Third Regiment fair. In this regiment guides, as a rule, were not careful to maintain the distance, cover, and step.

The field operations of the Second and Third Regiments afforded practice in minor tactics. Those of the Second Regiment represented the dispositions made by the advance guards of two opposing brigades marching toward each other on the same road and meeting on an open field. Those of the Third Regiment showed an attack by a small force on another guarding a prominent point between a railroad and a sunken road.

The batteries (Scales's, Clisby's, Pitt's, and Thomas's) drilled daily in the service of the piece. Battery A, First Regiment, maintained its own stable and park guard, as the other batteries should have done. I found officers and men well informed and anxious to improve as artilleryists, notwithstanding the lack of suitable horses, equipments, and modern guns.

Owing to the small strength of Pitt's and Thomas's batteries, I would recommend their reorganization and equipment as Gatling-gun platoons.

Troop A, Second Regiment, Captain Joseph, drills very creditably, is finely equipped, and well mounted, many riding their own horses. The captain is a strict disciplinarian, and, as a result, the troop, camp, stable, and picket lines were in excellent order. The troop performed its own guard as well as the usual stable duties.

Officers' call was sounded daily in the Second Regiment with good results. I would recommend that an officers' school be established during camp, subjects battalion drill and the administration of a post. A non-commissioned officers' school, subjects company drill and the administration of a company, should be held weekly during the winter at each company armory.

The ceremonies of guard mounting, dress parade, inspection, and review by the different regiments were very commendable.

A handsome stand of national colors was presented by Gov. Thomas Seay, on behalf of the State, with a patriotic speech, to each regiment, while the national flag was raised at the beginning of each camp with appropriate honors.

(2) *Guard duty.*—This duty was fairly well performed in all the regiments. The First Regiment, Colonel Williams, did not maintain its usual high standard in this respect. The Second Regiment, Colonel Jones, for several years has paid special attention to this subject. Copies of Regan's Manual were freely distributed to each company. The colonel gave his personal attention to instruction of members of the guard. Cadet Jones, second class, U. S. Military Academy, on furlough, rendered valuable assistance as special instructor in guard duty. At the colonel's request, I made frequent rounds and inspections; found officers and men generally proficient in a knowledge of the forms and faithful in the execution of their duties as guard and sentinels.

In the Third Regiment, Colonel John, a decided improvement in the performance of guard duty was to be noticed. I would respectfully recommend that each company be required, previous to the annual encampment, to practice in its armory the ceremony of guard mounting, and the posting, relief, and instruction of sentinels. The detail of a specially qualified instructor in each regiment would be followed by good results.

(3) *Target practice.*—More attention was paid to target practice during this encampment than in any previous year. In the First Regiment each man was required to fire at 100 and 200 yards, five rounds each. In the Second Regiment a prize match between teams composed of five of the best shots in each company, range 200 yards, ten shots each, took place; and in the Third Regiment five shots were fired by each member at 100 and 200 yards, and if a first-class qualification was made at these ranges, at 300 yards. It was the intention to fire the best shots in this regiment at 500 yards, but the time allotted did not permit. The First Regiment has a good range up to 600 yards on the Mobile Bay, near its camp ground, but it is not yet provided with butts, pits, or good target frames. Owing to the thickly-settled condition of the country around Montgomery, much difficulty is experienced in procuring a suitable range for the Second Regiment. The range of the Third Regiment is an excellent one, cut through the woods, and with a high bluff for a butt. It should, however, be provided with more suitable shelters for the markers.

In the Third Regiment a simple system of classification was adopted, and the names of the best shots, as well as all who attained the class of marksmen, were published in orders at the close of the camp. The good record of the First Regiment was largely due to the persistent work of Major Vass, who is not only an enthusiast upon this subject, but one of the finest military shots in the State. Lieutenant Thomas, Birmingham Artillery, managed the practice in the Second Regiment, utilizing his knowledge of this subject obtained while an officer of the Pennsylvania National Guard. Lieutenant Suttles, a good shot, worked faithfully as instructor in the Third Regiment. The colonel of this regiment took a lively interest in target matters.

The First Regiment Battery (Scales's) practiced with good effect with their 3-inch rifles at floating targets at 1,000 and 1,200 yards. Practice should also have been

had in the other batteries with their rifles and Gatling guns, and also in the cavalry troop with their pistols and carbines. Battery A, Second Regiment (Clisby), however, practiced several times during the year on a range down the river.

I would respectfully recommend that ammunition, targets, equipments, etc., be procured from the Ordnance Department; that orders be issued from the general headquarters establishing a simple system of classification, adopting Blunt's "Rifle and Carbine Firing" as the authority on this subject; and that, at the close of each encampment, the record of each troop, battery, company, and regiment be forwarded to general headquarters to be arranged according to merit and published, together with the names of distinguished marksmen, in general orders; that marksmen's pins be distributed; and that a suitable inspector of rifle-practice for the State, with rank of major, and regimental instructors, with rank of captain, be added by law to the existing organization. Should a general encampment be held, prize matches by regimental teams should be encouraged in the regimental camps between company teams. Until these matters are attended to, no permanently satisfactory results can be expected from the State troops in this all-important duty of the modern infantryman.

DISCIPLINE.

The discipline of the regiments is very good. The three colonels are soldiers of large actual experience, and have their officers and men under strict control. Many minor cases requiring correction by the captains interested were, however, submitted to the colonels for settlement.

The conduct of the men was in general soldierly. Although constantly around the camps, I saw no one in uniform under the influence of liquor. Men overstaying passes—which, as a rule, were too freely granted—without good excuses were confined to the guard-houses. Courts-martial held in the Second and Third Regiments had a good disciplinary effect, as well as practicing the officers on their methods of procedure.

An earnest desire to improve as soldiers pervades the rank and file. This state of affairs is due to the high character of the troops—strong, active young men drawn from the best elements in their respective communities. I regret to report, however, that, with the exception of the Second Regiment, military salutes were not generally rendered. This bond of union between the officer and man should never be neglected, especially by the State troops during camp.

Some of the companies of each regiment have been called during the year to aid in the enforcement of the civil law of the State, and the bearing of officers and men engaged have demonstrated that they have profited by the instruction received in these annual encampments.

EQUIPMENT AND ADMINISTRATION.

(1) *Ordnance department.*—The troops are armed with the Springfield rifle, caliber .45, and wear the regulation belt, cartridge-box, and bayonet-scarabard.

The First and Second Regiments each have arms and equipments for some 450 men; the Third for about 350. A small portion of these pieces are old models, and a number need small parts and repairs by a regimental armorer. As a rule, the well-drilled companies presented for inspection well cared for rifles and bright brasses, while in some other companies the pieces were rusty and dirty and the brasses tarnished. The regiment should be supplied with the blanket bag equipments—haversack, clothing-bag, and canteen, with meat-can, knife, fork, and spoon—as soon as possible. One thousand rounds ball cartridges are kept on hand at each company's armory, and a small reserve at regimental headquarters. A small gun-rack attached to the rear pole of each tent would be a convenience in camp and prevent the gun-stocks from being battered by lying around loose.

Scales's battery, First Regiment, is armed with two 3-inch rifles and two Gatling guns, caliber .45; Clisby's, Second Regiment, with two 6-pound brass guns, two 3-inch rifles, and one Gatling gun, caliber .45; and Thomas's battery with two 3-inch guns and one Gatling gun. All these pieces are in good order; harness old, but well kept. If the State wishes to maintain its artillery in an efficient condition, a sufficient number of suitable horses—the very life of a light battery—should be provided, to be retained in camp and cared for by the men.

The State arsenal, at Montgomery, is in charge of Ordnance Officer Paul Sausguinette, who has been in the State troops service sixteen years, and the issues are made upon the orders of the State adjutant-general. I would recommend that the ordnance officer be given a rank commensurate with his duties and responsibilities, and that an armorer sergeant, provided with the ordnance repairing tools and materials, be added to the existing regimental organization. In time each company should be provided with the smaller box of repairing tools, each man issued a certain rifle and set of equipments, to be kept in armory, held strictly responsible for their condition

at all times. By the adoption of this or some similar simple system can the arms and accouterments of the State troops be maintained in a state ready for active service at any moment.

(2) *Quartermaster's department.*—The annual allowance, \$7,500, for the maintenance of State troops is proportioned among the three regiments according to strength. The debts contracted pursuant to law and authorized by the colonel are paid by the quartermaster by warrants upon the State treasurer. These accounts are afterward scrutinized in the office of the State auditor. Business rather than mere routine methods seem to prevail. The quartermaster of each regiment arranges for the transportation of companies to and from camp by orders on the railroad companies' agents at their different stations. Captains Barry, Second, Butler, Third, and Schuermann, First Regiment, are successful business men, who seemed especially well versed in the duties of their department.

By the new military law each company is required to provide itself at private expense with a fatigue uniform corresponding to the U. S. Army pattern. The State should provide this service uniform at least for its soldiers. The full-dress uniform is left to the fancy of the different companies. It would be better were this uniform the same in each regiment. The First Regiment has about 95 tents of all kinds, the Second Regiment 100, and the Third Regiment 70, all regimental property.

Wooden tent-floors, buckets and dippers, cots, and axes are provided. The guard-houses and sinks are suitable wooden structures. The bath-rooms of the Second and Third Regiments were conveniently located, constructed, and well patronized. Each regimental camp was marked by a permanent flag-pole and supplied with storm and post flags.

(3) *Commissary department.*—With the exception of two companies the First Regiment was fed at a restaurant on the grounds. The Second and Third Regiments maintained regimental messes. Separate messes for officers and men, as arranged in the Third Regiment, are strongly recommended. Companies were marched to and from the mess-halls. The State allows a ration, cost 50 cents, for each man in camp. The food was of good quality, ample quantity, and well cooked and served. The Second and Third Regiments own their own cooking utensils and chinaware. Each company, however, should be provided at its armory with camp kettles, etc., so as to be ready for field service.

(4) *Medical department.*—Consisted of a surgeon-general (colonel) for the State, a surgeon (major), and assistant surgeon (first lieutenant) for each regiment—all surgeons of standing in their respective communities; was well conducted, though not thoroughly equipped. A medical knapsack, containing instruments and medicines, should be provided in each regiment for field use.

A detail of four stretcher-bearers should be made from each company, and instructed in their duties in the field.

* * * * *

Each company should be provided with a drummer and fifer or two buglers.

INSPECTIONS.

The inspections of 1888 revealed a decided improvement in the military condition of the State troops. Upon invitation of Col. A. B. Garland, adjutant-general, I visited his office in Montgomery, and was much interested in the simple, neat, and admirable system by which the military records of the State are kept and business conducted. He devotes gratuitously no inconsiderable part of time and attention to his duties as adjutant-general. Governor Thomas Seay, with full staff, as commander-in-chief of the State forces, gave encouragement to the troops by his presence at each regimental camp.

RECOMMENDATIONS.

For the good of their service, I would respectfully recommend—

- (1) That the three regiments be concentrated in a brigade camp of instruction during the next year at some suitable point.
- (2) The presence of regular troops at such a camp.
- (3) That the State artillery be allowed the privilege of practice with the guns and mortars of the forts at the entrance of Mobile Bay.

I am, sir, very respectfully, your obedient servant,

JOHN T. THOMPSON,
Second Lieutenant Second Artillery.

The ADJUTANT-GENERAL U. S. ARMY,
Washington, D. C.

REPORT OF THE ACTING JUDGE-ADVOCATE-GENERAL.

REPORT OF THE ACTING JUDGE-ADVOCATE-GENERAL.

WAR DEPARTMENT,
JUDGE-ADVOCATE-GENERAL'S OFFICE,
October 24, 1888.

SIR: I have the honor to submit the following report of the business of this office for the year ending September 30, 1888:

Commissioned officers tried by general courts-martial:
 Number of records reported upon and submitted to the Secretary of War for the action of the President 8
 Number of records received, revised, and recorded, not requiring the action of the President (convicted 8, acquitted 2) 10
 Cadets of the United States Military Academy tried by general courts-martial:
 Number of records reported upon and submitted to the Secretary of War... 1
 Number of records received, revised, and recorded, not requiring further action (convicted 1, acquitted 1) 2
 Enlisted men tried by general courts-martial..... 1,692
 Military convicts tried and convicted by general courts-martial..... 17

Total number tried by general courts-martial..... 1,730

The following tabulated statement shows the number of trials by general courts-martial for the last nine years:

Year ending September 30—	Strength of the Army.	Number of trials by general courts-martial.	Year ending June 30—	Strength of the Army.	Number of trials by general courts-martial.
1880	26,263	1,543	1885	26,879	2,328
1881	24,904	1,792	1886	28,544	1,983
1882	25,700	1,850	1887	26,436	1,640
1883	25,860	1,985	1888	26,738	1,750
1884	26,881	2,280			

There have been, therefore, ninety more trials by general courts-martial in the past year than during the preceding year.

Number of records of courts of inquiry received, etc 1
 Number of reports and opinions rendered upon proceedings of courts-martial, miscellaneous questions of law, applications for clemency, and other official matters 1,415
 Number of official applications from the War and Treasury Departments and Pension Office for abstracts of proceedings of trials—answered 1,309
 Number of copies of records of proceedings of general courts-martial furnished. 181
 Of these, 157 copies, containing 6,739 pages, were furnished to parties tried, and 24 copies, containing 861 pages, were furnished to the Pension Office and other executive offices and Departments; total number of pages 7,600

The following schedule exhibits the number of convictions in the Army, of the offenses indicated, as shown by the records of general courts-martial received at this office during the past year:

For absence without leave	309
For allowing prisoner to escape	17
For assault and battery	72
For assault with intent to kill	1
For breach of arrest	8
For desertion	389
For disobedience of orders	78
For disrespect to superior officer	20
For drunkenness	124
For drunkenness on duty	165
For embezzlement, etc.	7
For failure to attend drill, roll-call, etc	114
For larceny	62
For mutiny and mutinous conduct	9
For neglect of duty	34
For presenting fraudulent claim	1
For offering violence to superior officer	3
For quitting guard or post as sentinel	76
For quitting platoon or division	12
For selling, losing, or wasting government property	125
For sleeping on post	62
For conduct unbecoming an officer and a gentleman (not included under previous heads)	4
For disorders, etc., charged as "conduct to the prejudice of good order and military discipline" (not included under previous heads)	550
For miscellaneous offenses (not included under any previous head)	29

The number of records of garrison and regimental courts-martial which have been received and filed in the departments in which the courts were held is as follows:

Department of Arizona	1,236
Department of California	592
Department of the Columbia	810
Department of Dakota	2,132
Department of the East	1,440
Department of the Missouri	1,292
Department of the Platte	1,282
Department of Texas	1,217
Courts-martial convened by commanders of corps under the eighty-first Article of War	446
Total	10,447
Total number of cases tried by general and inferior courts-martial during the year ending September 30, 1893	12,177
Number of cases tried last year	11,136
Increase over last year of cases tried by general courts	90
Increase over last year of cases tried by inferior courts	1,041
Total increase	1,131

The number of trials by the inferior courts-martial resulting in acquittal were 187, while 4,579 represents the number of different enlisted men tried, many having been tried more than once.

Of the thirty-four Articles of War under which enlisted men may be tried thirty-two authorize imprisonment without fixing its limits. The length of the term of confinement is left to be governed entirely by the custom of war and the judgment of the court-martial. So far as these articles are concerned the range of punishment by confinement is

limitless, extending all the way from a day to a life-time. No matter how grave the offense, there is no minimum limit; no matter how trivial, there is no maximum limit. By them, confinement at the discretion of the court-martial is authorized as follows:

- ART. 16. Selling or wasting ammunition.
- ART. 17. Selling, or through neglect losing, or spoiling, horse, arms, clothing, or accoutrements.
- ART. 19. Using contemptuous or disrespectful words against the President, Vice-President, the Congress, and the chief magistrate or legislature of any of the United States.
- ART. 20. Behaving with disrespect to his commanding officer.
- ART. 21. Striking, or offering violence to, or disobeying his superior officer.
- ART. 22. Beginning, exciting, causing, or joining in a mutiny.
- ART. 23. Being present at a mutiny and not using utmost endeavor to suppress it.
- ART. 24. Refusing to obey, or drawing a weapon upon, an officer or non-commissioned officer engaged in quelling a fray or disorder.
- ART. 26. Sending a challenge to fight a duel.
- ART. 27. Being a second or promoter of a duel, or carrying a challenge.
- ART. 28. Upbraiding another for refusing a challenge.
- ART. 31. Lying out of quarters.
- ART. 32. Absence without leave.
- ART. 33. Failing to repair at the time fixed to the place of parade, exercise, or other rendezvous.
- ART. 34. Being found one mile from camp without leave.
- ART. 35. Failure to retire to his quarters at the beating of retreat.
- ART. 36. Hiring another to do his duty, or being hired.
- ART. 37. Conniving at such hiring.
- ART. 38. Drunkenness on duty.
- ART. 39. Sleeping on post, or leaving it before being relieved.
- ART. 40. Quitting his guard, platoon, or division, without leave.
- ART. 42. Misbehavior before the enemy, or abandoning fort, post, or guard.
- ART. 43. Compelling the commander of a garrison to surrender to the enemy or abandon it.
- ART. 44. Making known the watchword.
- ART. 45. Relieving the enemy with money, victuals, or ammunition, or harboring an enemy.
- ART. 46. Holding correspondence with, or giving intelligence to, the enemy.
- ART. 47. Desertion.
- ART. 51. Advising or persuading another to desert.
- ART. 55. Destroying or injuring private property.
- ART. 56. Doing violence to any person bringing provisions into camp.
- ART. 58. In time of war, larceny, robbery, burglary, arson, mayhem, manslaughter, murder, assault and battery with intent to kill, wounding by shooting or stabbing with intent to commit murder, rape, and assault and battery with intent to commit rape; but punishment under this article can not be less than is provided by law in the State, Territory, or district where the offense was committed.
- ART. 60. Certain crimes of fraud against the United States.
- ART. 62. All crimes not capital and all disorders and neglects which soldiers may be guilty of, to the prejudice of good order and military discipline, "not mentioned in the foregoing articles."

Were the military penal code administered by permanently constituted courts, consisting always of judges fitted for the position by training and temperament, the objection to such unmeasured discretionary power, although still manifest, would not be as great as it must be with tribunals of such ephemeral existence as our courts-martial, summoned as they are to meet the exigencies of particular cases, composed of such material as is most available, and necessarily, therefore, greatly differing in the age, experience, and calmness of judgment of their members.

It is true that it lies to some extent within the power of reviewing officers to remove this objection, and to introduce somewhat of system, each within his own command; but it goes no further than this, for they themselves differ in their views quite as much as the courts. The consequence of this state of affairs is, that we have different standards of punishment prevailing in the different departments, or, in other words, no uniform system governing the whole Army. This might be

easily illustrated, but it is unnecessary; it can not escape the observation of any one who gives the matter his attention.

The diversity of punishment which has thus sprung up leads to the use of the pardoning power in its equalization. It is perhaps a necessary consequence, but, I think, an unfortunate necessity. Military punishment is peculiarly of an exemplary, deterrent character; it concerns itself principally with the prevention of crime by example of punishment, and only in a limited degree with the reformation of the criminal. An undisciplined army is not only impotent against an enemy, but dangerous to the community which it was created to protect. The strictest obedience to law and order is therefore exacted of the soldier, and our statutes, besides holding forth to him many inducements to be a good soldier, also undertake to compel him to be such by setting up before him, *in terrorem*, the example of punishment.

Reformation of the offender is encouraged by statute, but reformation is weak in its effect upon the discipline of the army at large, when compared with the force of the exemplary character of punishment. If by it we understand the reformation of the soldier as a citizen, it would seem that such reformation would only apply in the case of the soldier who has committed a crime known to the ordinary law, and it therefore has no direct influence upon the maintenance of military discipline; and if we understand by it the reformation of the soldier as a soldier, then in the case of him who has been dishonorably discharged and is not restored to the service, it has no application. So that, however much to be encouraged reformation may be, it is not this feature of military punishment, but its coercive, exemplary character, which invests it with its chief efficacy; as is also forcibly illustrated by the large number of military offences made punishable with death.

Being then exemplary in character, it is most effective when accompanied by the element of certainty. A crime is less likely to be committed when it is known that its commission will surely be followed by punishment, from which no appeal would avail. But now, differing greatly in the amount of punishment which they have received for similar offences, military convicts are scarcely committed to prison before they begin their appeals to the pardoning power. They have been led to rely upon it, and, not improbably, have run the risk attending the commission of the crime because of the hope held out to them by what is the necessary consequence of a defective system of penal administration.

It is safe to say that in no other civilized country is there a code of penal laws which gives to the persons intrusted with their execution such enormous power over the personal liberty of the subject; and, in an age when in other ways we seek by every means in our power to protect it against abuse, it is strange that laws placing it so unguardedly in the hands of the military power should be permitted to remain on our statute book.

I do not wish to be understood as reflecting upon the system of administering military law by military courts. It is the only practicable one; and I am sure that, in the judgment of all who are acquainted with the working of the system, substantial justice is attained in so far that an accused person receives, in vital particulars, a fair trial. But I think it is a defective system which allows to the court-martial such unnecessary latitude of punishment. It is unnecessary, because the power of the court martial in restraining infractions of the law-military would not be impaired by affixing to offences, in their various degrees, definite limits of punishment. Why should not this be done in the military as

well as in other codes? We may try a soldier by court-martial for a homicide less than murder, yet the law-military knows no degrees in the crime, and no limit to the punishment, save only that it shall not be capital; but there is no reason why the military crime should not be placed under safeguards as well as the civil. And so with other offences.

Naturally, great progress has been made in modernizing and humanizing military punishments. The lash, the branding-iron, the sweat-box, the wooden-horse, in fact all brutal punishments, have disappeared, and so far as their *kind* is concerned we have a code which can not be found fault with; but we are far behind the day in not placing the *quantum* of punishment under more definite restrictions. Our Articles of War are inherited from a past age, and stand in need of being adapted to the circumstances and principles of the age we live in.

The subject here discussed was noticed by the Secretary of War in his annual report of 1887, and legislation with reference to it was recommended. I hope that it, as well as the other important matters affecting the administration of military justice remarked upon in that report, may receive further consideration.

Special attention is invited to the remarks of the division and department judge-advocates in their reports (extracts from which are appended) as to the necessity of supplying their offices with small working law libraries. It is a want which is constantly felt, and which has been frequently brought to my notice. An appropriation of \$5,000 would satisfy the present requirements of these offices, and is strongly recommended.

I am, very respectfully, your obedient servant,

G. NORMAN LIEBER,
Acting Judge-Advocate General.

Hon. WILLIAM C. ENDICOTT,
Secretary of War.

Extract from report of Lieut. Col. Thomas F. Barr, Deputy Judge-Advocate General, judge-advocate, Division of the Missouri.

* * * * *

No general court-martial has been appointed from these headquarters since the date of my last report, and questions affecting the discipline of the service have only been considered by this office through reference of cases originating in the departments within its territorial limits. In this connection I beg to give expression to views, long entertained by me, touching the trial of commissioned officers. It is generally acknowledged that there are too large a number of such trials, that cases are brought to a judicial hearing in which results demonstrate that a careful investigation and consideration would have induced a different course of action. The relations existing within a restricted command sometimes lead to the appointment of a court for the trial of a case which, from a more extended point of observation, would be determined without such action. A division commander is officially remote from the jealousies and quarrels that oftentimes culminate in divers charges and specifications, and it is believed that if all accusations against commissioned officers should be sent to him in the first instance for consideration, it would be greatly in the interest of good administration, and often prevent a positive injury to the service. After a sufficient investigation to form a judgment as to the merits of a case, it could either be disposed of by admonition of the accused officer, or other disciplinary method, returned to the department in which it originated for the appointment of a court for its determination, or a court appointed by the division commander, should the circumstances demand such a course. It is apparent that the enlarged field for a choice of members affords opportunity to at all times make selections of officers free from preconceived opinions or prejudices touching the individual pending case. Legislation is not required to give effect to the views above expressed. They could be vitalized by an amendment to the Army Regulations.

The varied questions referred to this office make plain the necessity for legislation upon several vitally interesting subjects. The Articles of War are, in some of their most essential features, vague and indeterminate in their phraseology, while some of them can have no application to our service, having reference solely to the system of administration prevailing in the British service, from which they were derived. The surplusage of these latter does no harm, but great injury is wrought by the obscurity of the former. The most pressing need of the service is, in my judgment, the adoption of a new code simplifying and making plain all of the present articles essential in their provisions for the government of the Army, and specifying the penalties to be adjudged for clearly defined offences.

The recommendation, made by me last year, that each judge-advocate serving at a military headquarters be provided with a civilian clerk, met with the favor of the Secretary of War, who recommended legislation in that behalf in his annual report. It has not yet borne fruit. It is again earnestly recommended. The ruling of the accounting officers deprived those officers of the services of clerks, who had been employed for many years and paid out of the appropriation for incidental expenses of the Army. The duties required to be performed by such clerks are often of a confidential and highly important character, demanding men of high grade.

This office is without a library, a lack that has caused me much embarrassment at times. I have enjoyed the courtesy of the law library in this city, but it is located at a considerable distance from headquarters, and under the rules governing it I am precluded from membership. The purchase of the Supreme Court Reports, a set of Abbott's National Digest, with a few text-books on contracts and criminal law, would form the nucleus of a library which could be enlarged each year by a moderate allotment of funds.

Extract from report of Capt. J. G. Ballance, acting judge-advocate, Department of Texas.

The relations of courts-martial to civilian witnesses have been in a very unsatisfactory condition ever since the publication of the decision contained in Circular 1, A. G. O., 1886, denying that they had the power to compel witnesses to testify. It is earnestly recommended that the decision be withdrawn so that courts-martial may feel free to so act as to give interested parties an opportunity of testing the matter in courts, or else that legislation be obtained giving to courts-martial power to preserve its own integrity in this as well as other respects.

The necessity of revising the Articles of War is so universally admitted, and attention has been so frequently called to it, that it seems temerity to again call attention to it.

The status of judge-advocates is beginning to approach the position which it was intended by the law-making power that they should have, viz: adviser of the military authorities in legal matters, whenever their interests were involved; hence a far greater necessity now exists for a suitable law library than when judge-advocates were only clerks to read over courts-martial proceedings.

It is no longer necessary to call into requisition the services of the United States district attorney to examine titles to military reservations, for competent officers may now be found at department headquarters who are able to attend to all legal matters.

In examining the statutes and decisions necessary to rendering a complete opinion, or to conduct the various matters that arise in the non-military courts, it is necessary for judge-advocates to have access to a good law library. There is no public law library nearer to this office than 83 miles.

When cases arise which require more than a mere reading of the statute, it is necessary for this office to take a trip of nearly six miles to San Antonio and return to make a proper examination of authorities. When the trip to town is made, it becomes necessary to depend on the charity of the judge-advocate's friends, and go from office to office until the search is concluded, either from finding the authorities desired, or from having reached in his peregrinations the end of the list of his legal friends.

This is certainly a humiliating position for an officer to be placed in when he is engaged in the official work of his office.

Every other department of the service has the means of obtaining the necessary professional books. The medical department is amply supplied not only with standard works, but also the current medical literature. The quartermaster's and even the subsistence department are supplied with books pertaining to their departments.

If an appropriation of \$1,000 was made the first year, for each military department, and an annual appropriation of a lesser amount made thereafter, a good deal might be done towards establishing and maintaining an efficient library at every department headquarters.

Extract from report of Capt. S. W. Groesbeck, acting judge-advocate, Department of Dakota.

The number of trials by garrison courts-martial at the different posts runs from 0 to 98 per cent. With the exception of Forts Buford, Custer, Raudall, and Yates, the larger posts have towns or cities in their near vicinity offering temptations leading to many infractions of discipline. While this fact in part explains the great difference in the number of trials had at the several posts, the varying methods of administering military law have also a material influence in bringing about these results. * * * Will it be going too far to hold also that, no matter what are the surrounding conditions, it can never be necessary to resort to courts-martial until the number of trials so nearly approximates 100 per cent., as is here shown to be true? At Fort Bennett and Camp Sheridan it was not practicable, for want of a sufficient number of officers, for the post commander to appoint garrison courts-martial, and hence other means of enforcing discipline must have been employed. Arbitrary punishments, after some manner, have doubtless been resorted to. Company commanders at these posts have had opportunity to manage their own men, and the results have been most excellent. No intelligent officer, however, will advocate a return to the cruel, arbitrary punishments, such as were common in the past, but the question arises upon the facts now under consideration, whether we have not gone too far in taking all discretionary punishment from the captain, who knows his men intimately, and transferring it to the post commander, who comes much less in contact with them and knows little of their personal traits of character, disposition, etc., and who, as a rule, refuses to exercise any discretion whatever, but unfailingly approves the sentences of the inferior courts, to which he refers all offences against discipline, serious and trivial alike. An inevitable evil result is, that by entertaining a multitude of trivial cases, these courts lose much of their impressiveness and deterrent influence. There is need of the fact being emphasized that company commanders should be encouraged to exhaust to the utmost such arbitrary means for preserving discipline as can be legally employed before having recourse to the court-martial.

Absence from roll-calls, through oversleeping or forgetfulness, many offences growing out of boyish spirits and indiscretion, and very many other offences devoid of malice or wilfulness, can and should be punished by the company commander—when more than reproof is deemed necessary—by requiring the offender to do the duty falling to one of the old guard fatigue party, to the relief of the latter, by extra police duty in and about the company quarters or stables, and in the gardens in season, etc. If the offender objects to the prompt performance of these tasks, on the ground of unjust punishment, the court-martial should then, and, as a rule, not until then, be resorted to. That this practice is conducive to better results than the uniform recourse to courts-martial, now too common in the Army, admits of little doubt. The personal experience of the writer in the command of men, and the impressions gained from the two thousand and more cases of garrison courts-martial reviewed in this office during the past year, confirm him in the view here expressed. Should not the law, within carefully defined limits, wherein cruelty shall be excluded, give to company commanders authority to impose arbitrary corporal punishments, the soldier to be given the right to respectfully appeal from the captain's judgment, not under the unmeaning, because rarely used, Thirtieth Article of War, but to a garrison court-martial, there to abide the issue? If, under present methods, all post commanders would, before approving sentences, call the prisoners before them and ask them to state why the sentence of the court should not be approved, and if the soldier's appearance, youth, length of service, apparent repentant or hardened condition of mind, and all the facts readily available concerning his habits and disposition, should be first considered and the sentence approved, modified, or wholly set aside, as the merits of each individual case or good policy might dictate, such post commanders would do much to place themselves in the position of the company commander to judge intelligently of each man's deserts, and little in the way of reform could be desired. Wherever methods approximating the above are employed in this department, a marked decrease in the percentage of trials follows. On the other hand, some post commanders unfailingly approve and direct the execution of the sentences of their courts. The careful consideration of each case costs too much trouble. So, too, there is not always wanting a secret gratification in having a large working party readily available from the guard-house. It would be uncalled for to assert that any officer in the service to-day would deliberately prefer to have such a guard-house force, but it is too true that the attitude of mind of some upon this point makes them less inclined

to so administer the means of discipline as to save men from the demoralizing effects of guard-house life. These are not pleasant facts, but as there are not wanting witnesses to their truth they should be stated. With a post commander inclined to approve all cases regardless of the individual character of the man back of the cold record of the court, the administration of military law becomes merciless, before which the character of the best soldiers, through unintentional lapses from discipline, go down. Such administration ceases to be intelligent, becomes half destructive of discipline, and trials increase.

Is it not safe to conclude that where the means of enforcing discipline is so largely vested in the post commander, through the medium of the garrison court, that that officer will find it more and more difficult, as our garrisons increase in strength, to give to each case that personal attention which includes the man behind the unsympathetic record of the court, and which is and must be essential to the best discipline? Has not his office been unduly burdened and at the expense of the essential authority of the company commander? Some officer nearer the soldier than a post commander must be held responsible for his individual training, and that officer is the captain.

To the end that his hand be greatly strengthened for this most important work he should be given more authority over the petty offences of his men—offences now needlessly referred to the jurisdiction of courts-martial.

While not called upon by my instructions to report upon desertions, it appears to be a custom to refer to them in connection with these reports.

The number of desertions in this department for the year ending September 30, 1883, as shown by separate special reports filed in this office, is 379, or 10.35 per cent. of the enlisted force.

In my report to the department commander the subject was discussed quite fully. The conclusions reached are embodied in the following extracts from said report:

"The law * * * and public sentiment * * * is in favor of the deserter. The enlisted men of the Army and the public * * * generally regard him as * * * a good, enterprising fellow. If he likes not his post, he deserts; if he owes debts inconvenient to pay, to decamp; if a mechanic, he seeks employment elsewhere; if a chronic deserter, he takes a summer vacation, and by and by will enlist for some other regiment. The truth is that many men desert, not because they dislike the service so much, but because they think they can do better in some other pursuit; many others desert to escape any inconvenience, no matter how trivial or temporary; a few are impelled by urgent or desperate causes growing out of their own vicious conduct, and still a less number from a sense of injury from treatment by their officers, non-commissioned officers, or comrades. * * * If all the causes leading to desertion could be fully ascertained and fairly stated, it would still remain that * * * our soldiers are well fed, and well clothed, paid, and, with few exceptions, well housed. Methods of discipline are not cruel, nor duty, except in rare instances, unduly severe. Still they desert, and no amount of coddling will stop them; and it is believed they will continue to desert in unchecked numbers until there is a radical change in the laws regarding desertion. Congress should pass a law making desertion a felony. Every man's hand should be turned against the deserter; every civil officer and all good citizens and soldiers should be authorized to arrest him at sight, turn him over forthwith to the military authorities, and be entitled to a liberal reward therefor. Citizens who knowingly harbor them should be subject to pains and penalties. In no case should a soldier once convicted of desertion be permitted to re-enlist; and in order to close the ranks of the Army against the chronic deserter, he should be branded. In no other way does it seem possible to check the widespread demoralization upon this subject.

"The obligation of every man who enlists must be placed upon higher grounds than that of an ordinary civil contract. It is important to inculcate this distinction in time of peace so that in time of war public sentiment will better sustain the laws against desertion, and the power of the nation be thereby increased. Regarded in this light the frequency of desertion is not only a serious question for the Army now, but one of continuing serious import to the nation."

During the year this office has frequently been compelled to rely upon the courtesy of the lawyers of this city for the use of private libraries, in order to safely dispose of questions frequently arising at these headquarters upon subjects of varying importance to the public. Why such an important public office as that of a commanding general of a great military department should be left so poorly supplied with the necessary professional text-books and means of information necessary to an intelligent performance of the very important duties required, is difficult of explanation. A large law library is not desired, but one well selected, to embrace the best authorities, the opinions of the Attorney-General, and the United States Reports, should be supplied to all department headquarters. A few hundred dollars judiciously invested in books, to be added to the few now on hand, would relieve this office of much embarrassment. A good law journal, to be preserved and bound, should also be supplied.

It is to be hoped that an appropriation can be secured for this purpose.

Extract from report of Capt. William E. Birkhimer, acting judge-advocate, Department of the Columbia.

* * * * *

The experience of the year has but emphasized the opinion heretofore expressed, that the library of this office is not what it should be. This is a fundamental matter, which goes to the root of an efficient judge-advocate's department. A sound opinion can not be given, information required by the commanding general can not be collected, unless those upon whom requisition is made are supplied with proper works of reference. Last year, in response to requests for funds, I was referred to the "surplus" of the Adjutant-General's Department. But that Department, as a rule, has nothing to spare, its necessities being equal to its supply. This experience has prevented further requests for funds being made this year, although the need of money, or books, which money alone can procure, has been severely felt. The United States Supreme Court Reports, for instance, are a necessity; yet this office, notwithstanding efforts made to remedy the deficiency, is but partially supplied with them. Occasions may not often arise when special knowledge is called for, but any moment may make such a demand; it is only fair that facilities be given to meet the emergency. That the judge-advocate's department should have money for its necessities seems but reasonable. The fund should somewhere be available, and it does not seem the part of wisdom that in this important matter one department should depend solely upon the bounty of another.

The clerical force of the office has changed three times during the year. To be an efficient clerk in this position requires, to begin with, a taste for legal matters, and to this must be added reasonably long and close application; without all this, no one, except as a mere copyist, can be of great assistance. One, to fill this position, can no more be turned out quickly than can a chemist, an electrician, or other person fairly versed in the sciences. If competent for his place, he has use for his brains as well as his pen. Unlike many errors made elsewhere, those made in papers passing through the judge-advocate's office are apt to be far-reaching in their consequences, affecting, as they do, the legal status of members of the military community. It is well-nigh impossible for one pair of eyes to detect every error, even though the possessor be a commissioned officer who carefully scans everything. That would demand infallibility, to which it is likely he approximates the least who has the most confidence. For these reasons, and other weighty ones that might be mentioned, it is greatly to be desired that the position of clerk in the judge-advocate's office be made permanent in its tenure.

The probable effect upon the Army of monthly, as compared with bi-monthly, payments has been an interesting subject of conjecture. At two posts of the department, viz, Vancouver Barracks and Fort Walla Walla, monthly payments have been made for a year past. At Vancouver Barracks the percentage of men tried by general courts was last year 5.7 of the total enlisted; this year, 8.4; by garrison courts last year, 45.3 per cent; this year, 45.7 per cent. The number of trials by garrison courts last year was 425; this year, 389; the number of desertions last year, 8.5 per cent. of the enlisted strength; this year, 6.9 per cent.; the total deposits last year were \$2,001; this year, \$2,699. At Fort Walla Walla the percentage of men tried by general courts was 5.5 last year; this year, 1.6 per cent. of the total enlisted; by garrison courts last year, 22.7; this year, 21.7 per cent.; the number of trials by garrison courts last year was 103; this year, 107; the number of desertions last year, 9.6 per cent. of the enlisted strength; this year, 8.2; total deposits last year, \$1,813; this year, \$2,038. To draw general conclusions from these facts might, however, lead to error. The time is too short during which the monthly pay system has been in operation; the data obtained too meager. Still, they are not without both interest and value, and when sufficient are accumulated they will go far to demonstrate the effect upon discipline of the new order of things.

On principle, it would appear that, in the long run, and in its average effect, the system of monthly, as contradistinguished from bi-monthly, payments must prove beneficial. It is true that the most dissipated will have, under this system, twice the number of opportunities they had under the former to become drunk, find their way into the guard-house, and before courts-martial. To this extent, the system is bad; but the evil, it is believed, ends here. All other features are good. But the class of men to which reference is just made is relatively a small one when compared with the total enlisted strength; therefore, the general effect of the new system must be salutary. Soldiers are like the rest of mankind, when they have earned their pay they would like to get it. The law provides them compensation by the month. When the end of the month comes, why, when practicable to give it to them, should they not have it?

A certain consequence of the new system must be that pay-day will cease to be the great "event" that it has heretofore been. It will cease, for that reason, to be signalized by so much that is prejudicial to good order and military discipline. It is not yet-

ceived how it can contribute to discontent in any degree; or to irregularities, except to the extent and in the manner before mentioned. In a word, it is worthy of extensive trial, with every reason for anticipating, from its workings, generally happy results.

In 17 cases brought before general courts, records of previous trials and convictions were introduced as provided in paragraph 291, Army Regulations. The salutary effect of this practice is manifest; its fairness can not reasonably be questioned. The liberality of courts-martial in permitting evidence of character to be introduced by the accused as of course, and on the asking, renders it all the more necessary that the government should have the means of showing that side of his character which the accused is not likely to enlarge upon.

The number of cases tried by general courts was 6, and by garrison courts 141, less than last year; the number of desertions was 23 less, a decrease, compared with last year, of 22 per cent.

Of the cases passed upon by general courts, 19 per cent. involves moral turpitude, being for desertion and larceny; but most were ordinary infractions of discipline. Unauthorized absence is one of the main causes of court-martial, 22 per cent. of the general and 58 of the garrison cases being for this offense.

Three and nine-tenths per cent. of the enlisted strength of the department was brought before general, and 29 per cent. before garrison, courts-martial. The former embraced 69 cases tried, and 66 men, 3 men being tried twice; the latter, 810 cases and 432 men. Sixty per cent. of these 432 men were tried but once.

Of the garrison cases, 50 per cent. was confined to 95 men. On the face of the record and regarding only the number of cases tried, it appears that 55 per cent. of the command has been brought before courts during the year, but closer examination shows that these 95 court-martial repeaters are largely responsible for this result.

There is one feature of military administration that, if steadily adhered to, must tend to contentment and promote discipline—it is *prompt trials*. The interval between the commission of the offense and the punishment therefor should be brief. A profound writer has said: "Oppression does not always arise from ill-nature, but sometimes from the mere inattention of government." This should not find illustration in the military service. There, facilities for meting out justice are seldom wanting. There, perhaps, more than anywhere else, prompt action is attended with the most salutary results, if indeed it be not indispensable to discipline. It sufficeth not that justice be administered; the unprejudiced and the caudid should be able to see that it is administered. But unnecessary delay in bringing to trial those who are accused only adds, in a questionable way, to the punishment of the guilty, while for him who is acquitted it is oppression. This would seem to be self-evident.

Additional investigation this year throws little light upon the causes of desertion. Now, as always, these causes lie hidden out of sight, in the breasts of the deserters, and are perhaps as numerous as the desertions themselves. In upwards of 50 per cent. of the cases no reason could be assigned therefor, and in few could it be determined with certainty. Twenty-five per cent. were known to be old soldiers, honorably discharged, but many others, with reason, were suspected of being professional deserters, enlisting at one place only, when convenient, to desert and repeat the same thing at another place. Though desertion is the crying evil of the Army, and a crime, yet outside of the Army a contrary sentiment prevails. As a result, the deserter finds an asylum in a large part of the community, misinformed as to the merits of the case. Apprehension seems remote and contingent, and military prisons have little terrors for him. Under these circumstances, an affront, fancied or real, a grievance with or without foundation in fact, are sufficient to determine alike the reckless or inconsiderate, the cool and calculating; matters do not please them; they know the worst possible consequences of defection and do not fear them; they desert and take the chances.

Much has been done in recent years to improve the condition of the enlisted man. The service has been rendered more attractive in various ways. The physical surroundings of deserters, as a rule, are far better in the Army than out of it. Considerations of this kind, however, have little weight when men can leave their colors, time and again, with comparative impunity.

It is seen (Appendix C) that the average expense per month of each deserter was \$34.02; what return has the Government received? Plighted faith broken, abandonment, and often when services, bound by oath to be rendered, are most needed.

Formerly, repeated desertion was prevented by marking the body of him convicted of the offence. In some cases this was accompanied by needless circumstances of severity. The natural result was a revulsion of feeling which abolished, at one stroke, not only the practice of marking, but unfortunately, also, the only safeguard then known against the evil. As often happens, reform went too far. Rigor gave place to license. The government stands to-day impotent, in great degree, to prevent the demoralizing practice. But it would seem to be the part of sound policy to render, by some means, the crime of repeated desertion impossible.

The proper manner of doing this is a grave question. The solution must be practicable, or it is futile to discuss the matter. A prejudice exists against the revival of marking by tattooing. It is said not to be in consonance with the "advanced thought" of the age. This may or may not be true. It is an assertion conveniently general in its nature, difficult either to prove or to disprove. But students of history and men of affairs will recall many instances where alleged "advanced thought" has given rise to laws so deleterious in their effect on the body politic that they were sooner or later repealed and the old order of things re-established. Whether right or wrong, a belief is deep seated in the minds of many who have the interest of the service at heart that the prohibiting of tattooing for desertion is an illustration of this class of legislation; and if the just deserts of delinquents, the interests of the service and of the government be attentively considered, it is believed, further, that the practice can not too quickly be resumed. Those who think thus do so only because it has seemed to be the only practical and rational method thus far suggested of preventing repeated desertions. The practice of tattooing can, and if again resorted to should, be shorn of those obnoxious features which have often made it repugnant to the better feelings of humanity; but while those who favor it regret that when thus mildly administered it should shock the sensibilities of any one, they can not lose sight of the fact that the government has some rights in this matter which should be protected. There appears, however, to have been recently devised a method, said by officers who have examined it to be wholly practicable, of identifying men by the measurement of various unchanging portions of the matured human frame, supplemented by the items of information now found in the descriptive list of the soldier.

The practicability of the scheme is problematical, or at least with us not yet ascertained. Considering, however, the important end it is intended to accomplish, it seems to be entitled to attention. One thing seems certain, it is that the government can fairly ask that the practice of repeated desertions shall be abated.

Extract from report of Capt. P. H. Ray, acting judge-advocate Department of the Platte.

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After many years' service in the line, and careful observation, I am of the opinion that the cause for desertion, generally, can not be attributed to any inherent defect in our system or administration, but rather in the restless and unsatisfied disposition of a people who are ever seeking change of location and employment. I do not think the evil can be remedied by any direct legislation or regulation. I do not find that the Army suffers more inconvenience and annoyance than great corporations or firms who employ great numbers of men.

In connection with this, I would recommend that the recruiting stations be removed from the great cities, and that some effort be made to recruit the Army from the smaller towns and the country, and not from the idle and worthless class which gather about the great centers. The only corrective that I deem would be at all effective would be that so often recommended, viz: to indelibly mark all those convicted of the crime so as to prevent re-enlisting after once having been convicted.

That acting judge-advocates should be required to purchase at their own expense the necessary law books and books of reference, does not seem just; the expense would be but slight to the government, but is a serious matter to an officer serving only a single tour of detail. I would recommend that a small appropriation for each department headquarters for the purchase of the necessary books on law and the current periodicals be asked for by legislation.

Extract from report of Capt. H. K. Bailey, acting judge-advocate Department of Arizona.

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Of the 214 men who have deserted the service during the year but 41 have surrendered or been apprehended. The reasons assigned by the boards of survey convened to ascertain the causes of these desertions are varied, and it is difficult to determine what are the real or fancied reasons which induce men to desert. It is thought that many men enlist in the East to procure transportation to the West; others in hopes of bettering their condition; but after serving a time discover that the discipline imposed, the routine duties required, and the amount of labor, not of a strictly military character, they are called upon to perform are not in accord with the ideas they

had formed of the service, and they become dissatisfied and desert the service upon the first favorable opportunity. The oath of enlistment is regarded by many men as of no binding force, and therefore do not consider that they are committing a very grave offense in deserting; others look upon enlistment as a simple contract that they are at liberty to break when fancy dictates. In this connection I desire to renew my recommendations of last year, that the reward paid for the apprehension of deserters should be increased so as to allow in addition thereto, the actual expense incurred in arresting and delivering the deserters to the nearest military post, and the necessary traveling expenses of the marshal or other officer returning to his home. Enlisted men should also be allowed the reward. United States marshals and their deputies should be required by law to arrest deserters wherever found, the expense incurred to be reimbursed to the Department of Justice by the War Department. Every deserter should, on conviction, be sentenced to confinement in a penitentiary and have the letter D tattooed in India ink on his left hip, the tattooing to be done by the post surgeon or under his personal supervision. I believe I can assert, without fear of successful contradiction, that 75 per cent. of the deserters from our Army have tattoo marks upon some portion of their person, ranging from a quarter of an inch in diameter to figures covering their entire breast. Recruiting officers should be required to exercise greater care in the enlistment of recruits, accepting none who can not furnish satisfactory evidence as to character, and possess sufficient knowledge of the English language to understand the Articles of War and such portions of the regulations as refer to the duties of a soldier, which the recruit should read, or have read and explained to him, before he is sworn in. The ration should be increased by the addition of fresh vegetables, and competent cooks enlisted to cook it. More attention should be paid to the comfort of men in garrison; squad-rooms should contain more air space and be large enough to accommodate not more than ten men, including the non commissioned officers in charge; comfortable reading-rooms, gymnasiums, and bath-houses should be built at each post, and the men encouraged to visit them. Gambling should be forbidden by law. The opinion that the term of enlistment should be reduced to three years is growing in favor, and I believe that many men who find the restraints of the service wearisome would faithfully serve the shorter period, while the longer one seems interminable. The operation of General Orders, No. 41, War Department, series 1886, is believed to have a most salutary effect upon that class of men who are constant occupants of the guard-house. By the application of its provisions the service can be relieved of this worthless, demoralizing, and burdensome class, and they can not continue in their course without fear of trial and severe punishment. The amendment to this order, published in General Orders, No. 46, current series, Headquarters of the Army, will, it is thought, greatly assist in the accomplishment of the purposes of the original order. The inequality of sentences imposed by general and inferior courts-martial for like offenses seems to call for some action toward the establishment by law of a military code by which more uniform punishments will be awarded, and it is therefore recommended that a board of officers be convened for the purpose of preparing such a code, and that one member be a civilian well versed in the common-law practice of the country.

In conclusion, I desire to invite especial attention to the urgent necessity of suitable law libraries for the offices of department judge-advocates. Papers involving a variety of questions are referred to these offices for an expression of opinion, and in order to render one, based on proper authority, recourse has to be had to the libraries of those more favorably placed, which frequently causes great embarrassment. It is not believed that it is either the desire or expectation that officers should be compelled to resort to such means to enable them to properly perform their duties, and it is therefore earnestly recommended that a request be made for a sufficient appropriation to purchase such works of reference as will supply each department judge-advocate with at least a working library.

Extract from report of Capt. Arthur Murray, acting judge advocate, Department of Missouri.

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Though the above figures show that the percentage of men tried during the year is about 4½, while last year it was 4¼, it must not be inferred that the discipline is necessarily worse. The increase may be simply due to the fact that a greater number of the men confined have been tried. The monthly statements of prisoners from the posts in the department show that at many of the posts from one-half to two-thirds of the men confined are released without trial. This custom of confining men for trivial offences and releasing them without trial must have, in my opinion, a very bad effect upon discipline, as it must in time render those men so treated callous in reference to

confinement in the guard-house, and hence careless in reference to the commission of more serious offences. A much better practice would be for the captain, or if necessary, the commanding officer, to admonish the culprits for trivial offences, and confine them only for those for which they should be properly brought before a court-martial, and there so punished as to teach them a lesson and to afford a warning to others that such offences will not be lightly overlooked.

This subject has been reported upon to the department commander and measures have been taken with a view to lessening the number of men confined and released without trial.

The number of desertions in the department during the year and probable cause therefor, as given by reports of boards of survey convened per General Orders 130, Adjutant-General's Office, of 1882, are shown below in Table I; the posts from which the desertions occurred by Table II:

TABLE I.

Probable cause.	First year of enlistment.	Second year of enlistment.	Third year of enlistment.	Fourth year of enlistment.	Fifth year of enlistment.	Total.
Cases where no cause could be ascertained	69	23	9	4	.....	105
Dissatisfied with the service	33	15	5	.....	1	54
Feared detection and punishment for some offence committed	17	6	3	8	4	38
Intemperate habits	3	4	2	2	.....	11
Influenced by others—persuaded away	7	2	1	.....	.....	10
Heavily in debt to comrades and others, deserted to avoid payment	3	2	3	1	.....	9
General worthlessness	5	2	.....	.....	.....	7
Excessive work and drills, resulting in general dissatisfaction	2	1	3	.....	.....	6
Family troubles	1	3	2	.....	.....	6
Enlisted for the purpose of getting transportation West and a home for winter	5	.....	.....	.....	.....	5
Due to the fact that the United States offers a premium to deserters from its military service .....	.....	1	1	1	.....	3
Roving disposition	1	.....	.....	1	.....	2
Supposed to have committed suicide .....	.....	.....	.....	.....	1	1
Total	146	59	29	17	6	257

Of the above number of deserters, 23 were retaken and disposed of in the department as follows:

Tried and sentenced to the military prison	12
Tried and sentenced to the military prison, but mitigated by reviewing authority	3
Tried and sentenced to the military prison, sentence remitted by reviewing authority	1
Tried and found guilty of absence without leave	4
Restored to duty without trial	1
Sent to other departments by request of department commanders	2

An examination of Table I shows that about three-fifths of the desertions are from no apparent cause or from dissatisfaction with the service; also that about four-fifths occurred in the first and second years of the enlistment. From this it would seem that the majority of the deserters were men who enlisted without fully comprehending what a soldier's life is, and who, after giving it a trial and finding it unsatisfactory, concluded to desert rather than serve out a five years' enlistment. In the opinion of one of the boards of survey above referred to, this determination to desert is in many instances due to the well known fact that not more than one in five deserters is caught, owing to the smallness of the reward offered for their apprehension, and that few of the number caught receive a longer term than three years in the military prison.

The simplest remedy for this evil would appear to be, to reduce the term of the first enlistment. It is not thought, however, that the service would in any way be improved by the addition of the floating element that this would create.

In view of the many good and useful suggestions that have been made in years past for procuring better soldiers, lessening the dissatisfaction with the service, and de-

creasing the number of desertions, it is deemed sufficient to call attention to those which are regarded as best and most practical.

(1) More care should be exercised by recruiting officers. No man should be enlisted who can not furnish satisfactory evidence as to his character; who does not understand English; or who has not first been fully instructed as to the life and duties of a soldier.

(2) The ration should be improved by the exclusion of salt pork and the addition of vegetables. More attention should be paid to the mess of the men and to the cooking. Except in emergencies, strictly military work only should be required of the soldier. His daily work should be concentrated instead of scattered as usual, and after it is completed every liberty consistent with good order and military discipline should be granted him.

(3) The reward for the apprehension of deserters should be increased, as well as the usual punishment for the crime. No convicted deserter should be sentenced to the military prison for a less time than he had to serve at the date of his desertion.

If the above suggestions were wholly or in part adopted, it is believed that the effect would be a plainly marked decrease in the number of desertions.

The work of the past year has shown that books of reference are much needed in this office. On one occasion I was compelled to wade through old files of Army and Navy papers in order to obtain desired information in reference to a decision of the United States Supreme Court. In a letter to the Acting Judge-Advocate-General dated May 19, 1888, I stated what books were specially needed in the office. The letter was returned for a statement of the price of the books wanted; after this had been endorsed thereon, the letter was again duly forwarded and nothing further has been heard in reference to it. As the Acting Judge-Advocate-General has already reported upon the subject to the War Department, the above statements are given simply to call his attention to the fact that the needs of the offices of the judge-advocates of departments have not yet been supplied.

REPORT OF THE QUARTERMASTER-GENERAL.

REPORT

OF

THE QUARTERMASTER-GENERAL.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., October 5, 1888.

SIR: I have the honor to submit the annual report of the operations of the Quartermaster's Department for the fiscal year ending June 30, 1888:

The balance in the Treasury to credit of the Quartermaster's Department at end of June 30, 1888, was, by last report.....	\$1,469,239.56
Appropriations for the fiscal year ending June 30, 1888, for the service of the Quartermaster's Department were as follows: Acts of February 9, 1887, March 3, 1887, February 4, 1888, March 30, 1888, April 4, 1888, April 15, 1888, April 21, 1888, May 9, 1888, June 18, 1888, June 30, 1888	9,218,057.67
Amounts deposited to the credit of appropriations and received from sales to officers.....	778,222.23
Total.....	11,465,519.46
Remittances to disbursing officers have amounted to..	\$9,008,573.60
Requisitions to pay settlements made at the Treasury on claims and accounts.....	936,177.15
Carried to surplus fund (act June 30, 1874)	203,265.14
	10,148,015.89
Leaving balance in Treasury undrawn at end of June 30, 1888	1,317,503.57

The tables, statements, abstracts, etc., which accompany this report will be found to give the items of appropriations, expenditures, and disbursements in all their details.

DUTIES OF THE QUARTERMASTER'S DEPARTMENT.

Under sections 219 and 220, Revised Statutes, and the authority of the Secretary of War, the Quartermaster's Department transports troops, munitions of war, equipments, military property, and all articles of supplies from the places of purchase to the several armies, garrisons, posts, and recruiting places; provides for the safe-keeping of such articles; the distribution, adequate and timely supply of the same to the regimental quartermasters, and to such officers as may, by virtue of the Secretary of War's regulations, be intrusted with the same; and the officers of this Department pay for store-rent and storage necessary for keeping such supplies.

By section 1133, it is further made the duty of the officers of the Quartermaster's Department, under direction of the Secretary of War,

to purchase and distribute to the Army all military stores and supplies requisite for its use which other corps are not directed by law to provide; to furnish means of transportation for the Army, its military stores and supplies, and to provide for and pay all incidental expenses of the military service which other corps are not directed to provide for and pay.

Section 1139 provides that the Quartermaster-General, under the direction of the Secretary of War, shall prescribe and enforce a system of accountability for all quartermaster supplies furnished to the Army, or to officers, seamen, and marines.

It is provided by acts of Congress and the regulations founded thereon that the Quartermaster's Department shall secure grounds for national cemeteries; to preserve from desecration the graves of all soldiers who fell in battle or died of disease in the field or hospital in the rebellion; to secure suitable burial places in a national cemetery, free of cost, for all honorably discharged soldiers, sailors, or marines who served during the late war, either in the regular or volunteer forces, dying subsequent to the passage of this act (approved March 3, 1873).

Provision is also made by law for the Quartermaster's Department to furnish suitable head-stones to mark the graves of all soldiers, sailors, or marines, who served during the late war, whose burial is provided for as above, or who may have been buried in private cemeteries.

By act approved August 4, 1886, further provision is made for continuing the work of furnishing head-stones for unmarked graves of Union soldiers, sailors, and marines in national, private, city, town, and village cemeteries, naval cemeteries at navy-yards and stations of the United States, and other burial places.

Under these several acts above recited, and others of like import, the Quartermaster's Department provides the means of transportation by land and water for troops and materials of war for the Army. It also, under the law, as amended, for arming the militia, provides the means of transportation for ordnance and ordnance stores issued by the United States to the several States and Territories, and is also charged with the duty of purchasing and transporting the quartermaster's stores and camp equipments for said militia. It transports the property for other Executive Departments on proper requisitions, payments therefor being made by the respective Departments to the carriers upon accounts forwarded through the Quartermaster-General's Office for that purpose. It provides wagons, ambulances, carts, saddles, and horse equipments (except for the cavalry) and harness (except that used by the artillery).

This department provides vessels for water transportation, builds wharves, constructs and repairs roads for military purposes, pays tolls, and builds all necessary military bridges. It provides and distributes clothing, tents and equipage, fuel, forage, stationery, lumber, straw for bedding for men and animals, and all materials for camps and for shelter of troops and stores, furniture for barracks, such as bunks, benches, chairs, tables, and lockers, heating and cooking stoves for use in public barracks and quarters, tools for mechanics and laborers in the Quartermaster's Department, and lights for all military posts and buildings.

It builds barracks, quarters, store-houses, and hospitals; provides, by hire or purchase, grounds for military encampments and buildings; supplies periodicals and newspapers or school books in lieu of periodicals, if desired, to the post libraries for use of the enlisted men.

Under provision of act of Congress, approved July 5, 1884, the Quar-

termaster's Department, under authority of the Secretary of War, contracts for all horses for artillery, cavalry, mounted infantry, and scouts, but in number not to exceed the enlisted men in service required to be mounted.

Under the same act this Department, under the Secretary of War, prepares plans and contracts for the construction of all buildings at military posts.

Under the provisions of section 219, Revised Statutes, "other officers" than "regimental quartermasters" to the average of 132 have been detailed in the Quartermaster's Department in doing its duties in various ways in the care and "distribution of the stores of the Quartermaster's Department, under the Secretary of War and his regulations."

INSPECTION BRANCH.

This branch is in charge of Lieut. Col. C. G. Sawtelle, Deputy Quartermaster-General, U. S. Army, and the duties pertaining thereto are principally the conducting of all correspondence relative to the assignment of officers of the Quartermaster's Department to stations, and to matters relating individually to officers, clerks, agents, and others doing duty therein. It also acts upon all matters relating to the application, examination, appointment, and assignment of post quartermaster-sergeants, U. S. Army.

The biennial and annual report, monthly roster, monthly return of officers, and pay-rolls of employes in Quartermaster-General's Office are prepared in this branch.

The station book, historical record of officers of the Quartermaster's Department, and of clerks in the Quartermaster-General's Office, and book of decisions, are kept in this branch, and all other necessary record books required in connection with the above described work.

The post quartermaster-sergeants authorized by the act of July 5, 1884, are on duty at the various stations, and their services are reported as generally satisfactory.

Eight thousand two hundred and six letters were received, 1,500 written, and 85,416 orders and circulars distributed during the last fiscal year in this branch.

BARRACKS AND QUARTERS.

This branch of the office is in charge of Lieut. Col. Charles G. Sawtelle, Deputy Quartermaster-General, U. S. Army.

During the fiscal year the construction of a number of new buildings at military posts was authorized. These buildings consisted of barracks, officers' quarters, store-houses, stables, offices, guard-houses, bake-houses, magazines, shops, granaries, bath-houses, sheds, etc., and were erected in the States of New York, Maryland, Arkansas, Florida, Nebraska, Illinois, Colorado, Texas, and California, and in the Territories of Montana, Dakota, Wyoming, Indian, Utah, New Mexico, Arizona, Idaho, and Washington, at an estimated cost of \$188,252. The cost of repairs made at the various posts, including material and tools, was \$234,482, and at the independent posts, recruiting stations, and depots, \$50,138.

COMMON MESS-HALLS FOR ENLISTED MEN AT PERMANENT MILITARY POSTS.

At the depot and school of recruits, David's Island, the common mess-hall for all enlisted men has now been in operation about one year.

The results, as reported from time to time by the proper officers, are shown to have been most satisfactory in so far as the comfort and health of the enlisted men are concerned. (See report of Capt. G. H. Cook, assistant quartermaster, herewith.)

This system has an economical aspect for this department in this; that with one mess-hall and kitchen at a post there is a concentration of means and appliances, all tending to economy, by suppressing a number of separate kitchens with each one a surplus outfit. The usual amount of money now put into a barrack building, at a post where there is a common mess-hall, affords a more liberal allowance of space, ampler dormitories and day-rooms, and admits of separate rooms for non-commissioned officers.

From a sanitary point of view it is an important change in this, that all kitchen slops and odors are kept away from the living-rooms and sleeping apartments of the men, and the kitchen policing is maintained under efficient control.

The general messing, as provided for the enlisted men at David's Island, has been intelligently put in practice with equally admirable results at Columbus Barracks, Ohio. The men are thus supplied at these posts from the ration with abundant well-cooked food served in a neat, inviting manner, leading to cheerfulness, health, and contentment, so far as such things can be secured by efficient management.

It seems plain, from the experience thus far gained, that this system would be of inestimable benefit to the enlisted men of the batteries that garrison permanent eastern sea-board and lake posts, and possibly some others in the Army.

In sundry civil bill approved March 3, 1887, Congress appropriated for the construction of buildings at, and the enlargement of, such military posts as in the judgment of the Secretary of War may be necessary, the sum of \$200,000, and the Secretary of War distributed the funds as follows:

Atlanta.....	\$58,424.00
Fort Porter.....	28,000.00
San Antonio.....	50,000.00
Presidio of San Francisco.....	2,358.00
Fort Myer.....	28,172.16
Fort Robinson.....	1,271.92
Fort Warren.....	30,793.00
Total.....	199,019.08

Atlanta.—Atlanta being designed for a ten-company post, still under construction, the establishment of which was authorized by Congress by acts of Congress approved July 7, 1884, and August 4, 1886, the Secretary of War apportioned for building operations thereat from appropriation for construction and enlargement of military posts pertaining to years 1886 and 1887, and regular supplies for 1887 the sum of \$197,437.24. A large part of the work at this post has been completed and remainder is in course of construction.

Fort Porter, N. Y.—Three double sets of officers' quarters at Fort Porter have been completed, at a cost of \$24,360.

San Antonio, Tex.—It having been contemplated to establish a twelve-company post at San Antonio, the Secretary of War apportioned from the appropriation for construction and enlargement of military posts, pertaining to years 1885, 1886, and 1887, the sum of \$175,000 therefor.

A portion of the work thus contemplated has been completed. All contracts have been closed, and no building operations are now in progress there, although additional work is contemplated at an early day.

Fort Myer.—The work authorized at this post was done by contract, at a cost of \$24,000.

Fort Warren.—For the new officers' quarters at this post the contract price was \$30,793. The work is still in progress.

SPECIAL PROJECTS.

Fort Riley, Kans.—The Secretary of War having approved plans for the erection of the necessary buildings at this post, contracts therefor have been made and the work is now progressing.

Fort D. A. Russell.—A portion of the work authorized by act of Congress approved January 29, 1887, and by the Secretary of War, has been completed, while the remainder is in progress.

Fort Robinson.—The work of constructing six double sets of officers' quarters, six barracks, and three stables, authorized at this post, have been completed, costing \$76,271.57.

Fort Sheridan.—The Department of Justice having rendered favorable opinion as to the title proposed to be conveyed, the tract of land known as the Highwood tract in the State of Illinois, the deed of conveyance has been duly accepted by the Secretary of War. It is proposed to make this a ten-company post, and the preparation of plans for the requisite buildings, and also for water, drainage, and heating, have been committed to the division chief quartermaster.

Denver, Colo.—The United States having secured a good and sufficient title, approved by the Attorney-General of the United States, to a tract of land containing 640 acres, situated in Arapahoe County, Colo., selected by the Lieutenant-General of the Army as the site for the new post authorized by act approved February 17, 1887, it is proposed to make this a ten-company post. For the commencement of the work the Secretary of War has already authorized the acceptance of the lowest bid received under advertisement for the erection of barracks, quarters, etc., aggregating \$97,750.

Newport, Ky.—The Department of Justice having rendered favorable opinion regarding the title to the site selected for the post at Newport, Ky., authorized by act approved March 3, 1887, the full amount of agreed purchase money, viz, \$43,100, has been paid, and the Secretary of War has approved the plans submitted by this office for the erection of certain buildings thereon, and authorized the construction of barracks, quarters, etc., aggregating \$92,058.

He has also approved plans for three double sets of N. C. S. quarters, but erection thereof is deferred for the present.

New York.—The new army building in New York City remains unfinished.

For improving the water supply at military posts, drainage, sewers, wharves, roads, and various other improvements, the sum of \$328,708 has been authorized and expended.

By act approved February 9, 1887, the sum of \$10,000 was authorized for shelter and shooting galleries and ranges, and repairs therefor, and the sum of \$100,000 for construction of and repairs of hospitals.

THE ARMY AND NAVY GENERAL HOSPITAL.

The Army and Navy Hospital at Hot Springs, Ark., is practically completed, and is now a hospital of the Army.

By act of Congress approved February 9, 1887, the sum of \$10,000 was appropriated for the construction of quarters for hospital stewards,

including the extra duty pay of enlisted men employed on same. Of this sum the Secretary of War apportioned to the several posts the sum of \$9,721.19, leaving a balance on hand June 30, 1888, of \$278.81.

TRANSFER OF PROPERTY.

By act of Congress approved March 8, 1888, the Secretary of War was authorized and directed to convey by deed to the trustees of the Porter Academy, of Charleston, S. C., and to their successors, the property situated in said city belonging to the Government of the United States, formerly used as an arsenal and now for the seven years last past used for educational purposes, said conveyance to embrace a condition that said property shall be inviolably dedicated to educational purposes and no other.

The action taken by the Secretary of War for the execution of the law referred to is not of record in this office.

POST CEMETERIES.

The remains of many soldiers have been transferred from various military posts to other cemeteries. Fence and other improvements have been made at Madison Barracks, Key West Barracks, Fort Sisseton, Fort Snelling, Fort Wingate, Whipple Barracks, Fort Canby, and Vancouver Barracks, at an expenditure of \$7,100.

RESERVATIONS.

The President of the United States, on September 1, 1887, set apart a certain tract of land in Utah Territory, within the limits of the Uintah Indian Reservation, for military purposes in connection with the post at Fort Du Chesne.

Also, on September 26, 1887, a certain tract of land in the State of Colorado was set apart for a military purpose in connection with post to be established near Denver, pursuant to act of Congress approved February 17, 1887.

On November 17 and December 16, 1887, the limits of the military reservations at Fort Spokane, Washington Territory, and Fort Totten, Dakota Territory, were modified, and on January 17, 1888, the limits of Fort Buford, Dakota Territory, were modified.

TRANSFERS.

Fort Carlin, Nev., was transferred to the Interior Department as no longer needed for military purposes.

As regards the site of Fort Elliott, Tex., attention is invited to my letter to the honorable the Secretary of War of February 29, 1888, in which the subject is considered and recommendation made to the effect that if it is the intention of the War Department to continue this military post that an estimate be submitted to Congress with request for a special appropriation of the amount required for the purchase of the land.

FIRES.

The losses by fire during the fiscal year have been as follows: Cavalry sheds at Fort Walla Walla, Wash.; officers' quarters at Monterey, Cal.; commissary storehouse at Fort McKinney, Wyo.; stable at Fort

Leavenworth, Kans.; gymnasium building at Fort Bidwell, Cal.; officers' quarters at Fort Buford, Dak.; old engineer barracks and quarters at Alcatraz Island, Cal.; quartermaster's office at Boston, Mass.; quartermaster's storehouse at Fort Apache, Ariz.; quartermaster's storehouse at Holbrook, Ariz.; band quarters at Fort Supply, Ind. T.; wash-house at Boise Barracks, Idaho; one troop barrack at Fort Walla-Walla, Wash.

TRANSPORTATION, REGULAR AND MISCELLANEOUS SUPPLIES, AND MISCELLANEOUS CLAIMS AND ACCOUNTS.

These branches of this office are in charge of Maj. James Gilliss, quartermaster U. S. Army.

TRANSPORTATION.

During the fiscal year transportation was provided by the Quartermaster's Department by rail, water, wagon, and stage for 366,012 persons (including 326,633 persons transported and ferried by Government vessels), 115,629 tons of material, and 1,677 animals, costing as reported \$1,067,243.92, of which \$345,019.96 was for transportation of persons, and \$722,223.96 for the transportation of live stock and freight. Of this sum \$283,051.97 was still due on outstanding accounts not settled at the close of the fiscal year.

These amounts are for actual transportation only; other sums and purchases, payable from the Army transportation appropriation, have swelled the total expense to \$2,506,182.97, of which \$416,784.70 apparently remain unpaid at the close of the fiscal year.

The expenses of military transportation not paid out of the appropriation "Transportation of the army" comprises that provided over bonded Pacific railroads, their leased lines and branches, in value \$492,426.32, which is credited at the Treasury Department on the debts of those railroads as required by law, and that provided over land-grant railroads to which 50 per cent. of the tariff rates are paid under act of Congress approved February 9, 1887, making special appropriation of \$50,000 for that purpose.

MOVEMENT OF TROOPS.

The larger movements of troops during the fiscal year were as follows:

Third Cavalry.—Four troops from Department of the Missouri to Department of Texas.

Fourth Cavalry.—One troop from Department of Arizona to Department of the East.

Fifth Cavalry.—Four troops change of station within Department of the Missouri.

Sixth Cavalry.—One troop from the Department of Missouri to Department of the East.

Seventh Cavalry.—Entire regiment from the Department of Dakota to Department of the Missouri.

Eighth Cavalry.—Headquarters and ten troops interchange stations with Third Cavalry within Department of Texas.

Ninth Cavalry.—En route from Department of Texas to Department of Dakota.

First Artillery.—One battery from Department of California to Department of the East, and one battery from Department of the East to Department of California.

Third Infantry.—Entire regiment from posts in Montana to posts in Dakota and Minnesota—interchanging station with Twenty-fifth Infantry within Department of Dakota.

Fifth Infantry.—Entire regiment from Department of Dakota to Department of Texas.

Sixth Infantry.—Six companies from Department of the Platte to Department of the Missouri.

Eleventh Infantry.—From Department of Dakota to the Department of the East.

Twelfth Infantry.—From Department of the East to Department of Dakota.

Thirteenth Infantry.—Headquarters and nine companies from Department of Arizona to Department of the Missouri.

Fourteenth Infantry.—One company from Department of the Columbia to the Department of the Missouri.

Sixteenth Infantry.—From Department of Texas to Department of the Platte.

Twenty-second Infantry.—Headquarters and nine companies from Department of the Missouri and one company from the Department of Arizona to Department of Dakota.

Twenty-fourth Infantry.—From Department of Missouri to Department of Arizona.

Twenty-fifth Infantry.—From posts in Minnesota and Dakota to posts in Montana, interchanging stations with the Third Infantry within the Department of Dakota.

The total cost of these movements of troops was \$212,646.29, of which the sum of \$10,460.61 was drawn from the appropriation pertaining to the fiscal year 1889, as a portion of these movements were not completed in the fiscal year ending June 30, 1888.

The transportation necessary for the above movements has, as a rule, been secured by the Quartermaster's Department at special rates lower than the ordinary rates charged by the tariffs of the railroads, thereby saving to the Government about \$50,000.

The contractors' steamer, *General Terry*, having four companies of the Fifth Infantry on board bound from Bismarck, Dak., to Kansas City, Mo., via the Missouri River, struck a pier of the Union Pacific Railroad bridge near Omaha, Nebr., and sunk within a few hours. No lives were lost and the troops continued their journey to Texas by railroad.

With this exception no accident has been reported in connection with the extensive movements, and no complaints have been reported of insufficient accommodations or unnecessary delays, and the several officers of the Quartermaster's Department under whose immediate direction the work was performed should share with the transportation companies in the praise to be accorded for the successful execution of the orders directing the movements.

RAILWAY SERVICE.

Transportation was supplied by rail by the Quartermaster's Department for 33,868 persons, 1,554 animals, and 55,683 tons of materials, at a cost (1) by payment out of the appropriation "transportation of the Army," \$734,091.70, of which \$189,437.60 was for transportation of persons, \$316,346.25 was for transportation of live-stock and freight, and \$228,307.85 for payment of outstanding accounts at the close of the fiscal year; (2) by credit on account of indebtedness over bonded Pacific railroads, \$492,426.32; of which \$176,932.98 was for transportation of per-

sons, and \$315,493.34 for transportation of live-stock and freight; (3) payment of land-grant railroads out of special appropriation for the purpose, \$50,000.

The total cost to United States of railroad transportation furnished by the Quartermaster's Department during the fiscal year was \$1,276,518.02.

BONDED PACIFIC RAILROADS.

Nine thousand two hundred and ninety-two persons, 605 animals, and 19,154 tons of material were transported from the Department over the bonded Pacific railroads, their branches and leased lines, during the fiscal year. The amounts which will inure for this service to the interest of the respective railroads upon the books of the Treasury, computed at the full rates of the published tariffs, aggregated \$492,426.32.

The accounts of the Pacific railroads which, during the year, were prepared by the Quartermaster's Department and acted upon in this office, and referred to the Treasury for settlement, amounted in the aggregate to \$310,698.79, of which \$5,628.17 was for transportation under the provision of the law of July 5, 1884, for other departments of the Government.

In the Treasury, accounts of these companies amounting to \$99,553.49 awaited settlement at the close of the fiscal year.

Settlements of the accounts of these bonded Pacific railroads has continued to be made during the year under the provisions of the circular of the honorable the Secretary of the Treasury of June 23, 1887, a synopsis of which was published in my last annual report.

LAND-GRANT RAILROADS.

The sum of \$56,195.83 was paid during the fiscal year for military transportation over land-grant railroads upon accounts adjusted in the Quartermaster-General's office and settled through the accounting officers of the Treasury, being 50 per cent. of the tariff rates for like transportation proposed for the public at large, as prescribed by the law appropriating money for the payment. Of this sum \$26,099.33 was paid from the appropriation for fiscal year ending June 30, 1888, and \$30,096.50 from similar appropriation of previous fiscal years.

WATER TRANSPORTATION.

There were moved by water during the fiscal year 2,892 persons, 123 animals, and 11,494,445 pounds of materials, not including 326,633 persons and 2,097,994 pounds of materials transported or ferried on United States vessels, controlled or operated by the Quartermaster's Department. The total cost of this service was \$197,088.92.

The cost of repairing, running, and maintaining the vessels owned by this Department, including the wages of the crews, during the fiscal year, as reported, was \$96,840.71, a reduction of \$5,430.96 since the last fiscal year.

Steam-launch *Amelia Wheaton*, purchased August 20, 1880, for \$8,000, stationed at Fort Sherman, Idaho, was reported sunk about 3½ miles up the St. Joseph River. She was afterwards raised, and, upon the recommendation of the assistant adjutant-general Division of the Pacific and the Quartermaster-General, her sale at public auction has been authorized by the Secretary of War.

The United States schooner *Matchless*, transferred to the United States Coast and Geodetic Survey, upon conditions stated in my annual report for 1885, has remained in that service during the past fiscal year.

The steamship *Illinois*, owned by the War Department, and heretofore used by the Quartermaster's Department as a transport (but reported to be worn out and worthless for any sea service), was placed gratuitously at the disposal of the quarantine commission, New York City, for an indefinite period, by joint resolution of Congress of May 23, 1870. On May 24, 1888, the president of the board having notified the Secretary of War that the board had no further use for the vessel, its sale at public auction was authorized by the Secretary of War. The vessel was sold at public sale by the depot quartermaster, New York City, on June 14, 1888, for \$1,100.

WAGON TRANSPORTATION.

The Department transported by wagon carriage 106,294,985 pounds of military supplies during the fiscal year, at a cost of \$245,785.40.

The sum of \$39,613.10 was still due on outstanding accounts at the close of the fiscal year.

One hundred and one contracts for wagon transportation were filed during the fiscal year.

STAGE TRANSPORTATION.

Two thousand six hundred and nineteen persons and 3,707 pounds of extra baggage were transported by stage during the fiscal year, costing \$22,144.86. Of this sum, \$3,352.25 remained due on outstanding accounts June 30, 1888.

TELEGRAPHING ON ARMY BUSINESS.

The provision of law under which these accounts have been adjusted remains the same as set forth in my last annual report. The total cost of telegraphing for the Army during the fiscal year is reported at \$7,004.10.

During the year the Quartermaster's Department has continued to prepare and settle these accounts; 508 accounts accruing during the fiscal year 1887-'88, amounting to \$4,290.32, were received. Of these, 394, amounting to \$3,091.15, have been settled, leaving 114, amounting to \$1,199.17, remaining in the Treasury unsettled June 30, 1888.

A new basis of calculating distances was adopted by the Postmaster-General, fixing the rate of charge for telegraph communication on and after July 1, 1887. For the convenience of officers of the Army, a table of distances, together with the schedule of rates for Government telegrams, was published August 4, 1887, in General Orders No. 54, Adjutant-General's Office.

INDEBTED RAILROADS.

The last annual report of the Quartermaster-General showed that three such railroads remained with unadjusted accounts June 30, 1887, representing an aggregate of \$1,187,628.27.

The matter involved in the relation of these three roads to the United

States remained unadjusted, nothing having been paid on the accounts during the fiscal year ending June 30, 1888. The nature of the indebtedness of these roads are fully explained in my annual report for the year 1885, when legislation or legal action was recommended.

TRANSPORTATION ACCOUNTS AND CLAIMS.

Three thousand seven hundred and fifty transportation and telegraph accounts and claims, amounting to \$658,261.74, were adjusted during the year. Of these, 3,733, amounting to \$651,877.19, were referred to the proper bureaus or office for settlement. Five, amounting to \$1,078, were unfavorably reported upon and rejection recommended, and 12, amounting to \$5,306.55, were awaiting action or under adjustment at the close of the fiscal year.

REGULAR AND MISCELLANEOUS SUPPLIES.

ANIMALS.

Nine hundred and twenty-four cavalry and artillery horses were procured by purchase during the fiscal year, costing \$127,138.35, an average cost of \$137.59 per head.

For the Army transportation and special service, 30 draught horses were purchased at an average cost of \$201.73 per head, and 5 mules at an average cost of \$180 per head.

The sale of 910 cavalry and artillery horses, 58 draught horses, and 700 mules, is reported for the sum of \$72,083.09. All of which was deposited in the Treasury to the credit of miscellaneous receipts, excepting such small sums as were received from sales to officers.

There were 223 cavalry and artillery horses, 11 team horses, and 196 mules lost, stolen, and died during the fiscal year, leaving on hand on the 30th of June, 1888, 6,036 cavalry and artillery horses, 316 team horses, 4,444 mules, and 6 oxen.

VETERINARY SUPPLIES.

Under section 322 of the Army Regulations veterinary supplies were purchased during the fiscal year from the Medical Department to the value of \$4,506.64.

ILLUMINATING SUPPLIES.

During the fiscal year there were purchased 481 lamps (pendant and bracket), 24 street lanterns, 230 street lamps, 10 hand lamps, 4 square lamps, 837 lanterns (oil and candle), and the necessary chimneys, wicks, and various extra parts required, at a cost of \$8,266.16.

Two thousand three hundred and fifty-nine gallons of gasoline were purchased at a cost of \$532.29, and also 330,200 gallons of mineral oil, at a cost of \$47,481.58. Also the sum of \$6,765.34 was expended for gas (making the aggregate expenditure during the fiscal year for illuminating supplies, \$63,036.29).

MISCELLANEOUS CLAIMS AND ACCOUNTS.

Nine hundred and ninety-four of these claims and accounts, amounting to \$261,066.48, received final action during the fiscal year, and

11,028 claims and accounts, amounting to \$8,271,041.87, remained on hand at the close of the year.

These claims are usually for small sums due for services rendered as teamsters and laborers during the late war. In their preparation for transmission to the accounting officers of the Treasury for action, it is necessary to examine the monthly rolls of persons hired on file in this office in order to verify the statements of the claimants, who are frequently ignorant of the names of the quartermasters who employed them, and of the military command in which they served. Much correspondence and patient research of the records is required in their preparation for final action, and as time passes the information obtainable in such cases is less definite and helpful in their examination.

Among the claims reported as on hand are included a large number of vouchers issued by officers of the Quartermaster's Department during the late war for stores purchased and for services rendered. The whereabouts of the owners of these vouchers are unknown and it is probable that very few, if any of them, will be called up for settlement.

Under the provisions of Paragraph 538 Army Regulations, reading matter, consisting of newspapers, has been supplied to the libraries of 132 military posts, independent arsenals, recruiting depots, etc., at a cost of \$4,645.83.

CLAIMS UNDER THE ACT OF JULY 4, 1864.

The work of this class of claims is virtually closed. Fifty-one claims only remain on hand. A few of them are held up at the request of the claimants who desire to submit additional evidence. But in most of the cases no further action is likely ever to be required, as neither the whereabouts of the claimants nor their representatives are known.

Under the act above referred to more than 58,000 claims, amounting in the aggregate to over \$40,000,000, have been filed. The amount recommended to be allowed in those cases was \$6,000,000; disallowed, \$34,000,000.

During the fiscal year 1887-'88 1,491 claims, amounting to \$1,355,600, were acted upon in this office. Allowance was recommended in the case of 289 claims to the amount of \$53,000. The amount disallowed was \$1,302,600.

The claims originating under the act of July 4, 1864, have been investigated by agents specially authorized for the purpose, who had power to administer oaths. They visited the localities where the claims originated and took the testimony of all witnesses presented by the claimants, and also such as could be procured on behalf of the Government, and such testimony with the report of the agent were transmitted to the Quartermaster-General for his consideration in reaching a decision.

At the beginning of the fiscal year five agents were employed in the investigation of these claims. The work having been completed the last agent was discharged April 30, 1888, thereby effecting a saving to the appropriation of \$4,668.82.

The following statement will show the number of agents employed during the four years last past, and the amount appropriated and expended for their salary and per diem while traveling, and expense of transportation:

Fiscal year.	Agents author- ized.	Amount appropriated.		Amount expended.	
		For salary.	For per diem while travel- ing and ex- penses of transporta- tion.	For salary.	For per diem while travel- ing and ex- penses of transporta- tion.
1884-'85	25	\$35,000.00	\$30,000.00	\$33,830.24	\$29,911.94
1885-'86	25	35,000 00	30,000.00	28,975.36	26,117.29
1886-'87*	25 }	14,000.00	12,000.00	14,049.66	11,736.86
1887-'88	10 }	7,000.00	6,000.00	2,264.75	2,350.85
	5				
Total		91,000.00	78,000.00	79,120.01	70,122.94

* At the commencement of the fiscal year there were 14 agents in service. The act reducing the number to remain in service to 10 was not passed until the 31st of July, 1886. By joint resolutions of July 1 and 15, the appropriations for the previous year were continued until the 31st of that month.

Total amount appropriated on this account.....	\$169,000.00
Total amount expended on this account	149,242.95

Expenditures were less than the appropriation	19,757.05
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CLOTHING AND EQUIPAGE SUPPLIES.

This branch is in charge of Capt. John F. Rodgers, military store-keeper, U. S. Army.

The clothing and equipage of the Army are contracted for or manufactured at the general depots of this Department, at Philadelphia, Jeffersonville, and San Francisco, Cal. The boots and shoes are manufactured at the military prison at Fort Leavenworth, Kans. The articles have been up to the required standard, and no complaints have reached this office in regard to the quality of the supplies.

The amount appropriated by Congress for the purchase of clothing and equipage and materials, packing same for transportation, pay of employes, and for all other incidental expenses connected with the supply of clothing and equipage to the Army, for the last fiscal year, was \$1,150,000.

The sum of \$103,942.26 was placed to the credit of the appropriation from sales to officers and other sources, and the credits to the appropriation from issues to the militia amounted to \$112,638, making a total of \$1,366,580.26. The expenditures chargeable to the appropriation amounted to the sum of \$1,362,787.68, leaving \$3,792.58 in the Treasury on the 30th of June last. This amount will have to be further drawn upon to pay for liabilities incurred prior to the close of the fiscal year.

GENERAL MANUFACTURES.

The principal manufactures at the general depots, during the fiscal year, were: 6,000 canvas caps, 9,000 overcoats (kersey), 6,000 dress coats, 34,000 blouses, 19,000 canvas coats, 61,000 trousers (kersey), 23,000 trousers (canvas), 42,000 flannel shirts, 13,000 stable frocks, 19,000 overalls, 55,000 pairs drawers, 2,000 pairs canvas mittens, 3,400 gold-lace chevrons, 8,400 pairs cloth chevrons, 1,800 mattress covers, 3,800 pillow cases, 1,465 tents, all kinds, 21,000 corn brooms, 4,000 barrack chairs.

The garments are cut at the depots, and the work of sewing is given to tailors and sewing-women, care being taken to give employment as far as practicable to widows and relatives of the soldiers and sailors of the late war.

The total sum paid to employés for making articles above mentioned was \$132,064.52.

In addition to the foregoing the sum of \$5,869 was expended at the Philadelphia depot for labor employed in the manufacture of tents.

ISSUES TO THE ARMY.

The principal issues from the general depots during the fiscal year were as follows: 4,800 helmets, 3,907 cork helmets, 27,000 forage caps, 7,000 fur caps, 5,000 canvas caps, 15,000 campaign hats, 8,000 overcoats (kersey), 1,300 fur and canvas overcoats, 5,000 dress coats, 30,000 blouses, 10,000 canvas coats, 7,000 stable frocks, 10,000 pairs overalls, 53,000 pairs trousers (kersey), 22,000 pairs trousers (canvas), 13,000 pairs suspenders, 26,000 flannel shirts, 11,000 pairs boots, 51,000 pairs shoes, 44,000 knit shirts, 50,000 pairs drawers, 72,000 pairs wool stockings, 98,000 pairs cotton stockings, 118,000 pairs Berlin gloves, 4,000 pairs wool mittens, 4,000 pairs canvas mittens, 6,000 pairs fur gauntlets, 1,000 pairs leather gauntlets, 3,800 pairs Arctic overshoes, 26,000 pairs barrack shoes, 13,000 wool blankets, 3,900 pairs gold lace chevrons, 8,300 pairs cloth chevrons, 2,000 barrack bags, 1,000 bunk bottoms, 1,800 mattresses, 3,800 mattress covers, 2,400 pillows, 15,000 pillow cases, 7,800 bed sheets, 3,000 mosquito bars, 2,000 axes, 3,500 shovels, 2,000 tents (all kinds), 25,000 corn brooms, 4,200 barrack chairs, 10,000 scrubbing brushes, 97,000 linen collars.

ISSUES TO THE MILITIA.

Under act of Congress amending section 1661, Revised Statutes, making an annual appropriation to provide arms and equipments for the militia of the States and Territories, the Quartermaster's Department is charged with the duty of purchasing the quartermasters' stores and equipments, and the following articles were issued to the governors of the several States and Territories during the fiscal year: 872 woollen blankets, 3,602 blouses, 4,063 forage caps, 2,489 cap ornaments, 4,659 cap letters and numbers, 1,507 pairs chevrons of all kinds, 1,185½ yards D. B. cloth, 800 yards D. B. blouse flannel, 960 helmets, 4,365 yards S. B. kersey, 1,148 pairs leggings, 1,071 mess pans, 1,292 overcoats, 1,870 common tents improved with wall, 586 wall tents, 4,453 pairs trousers, 1,506 pairs trousers stripes.

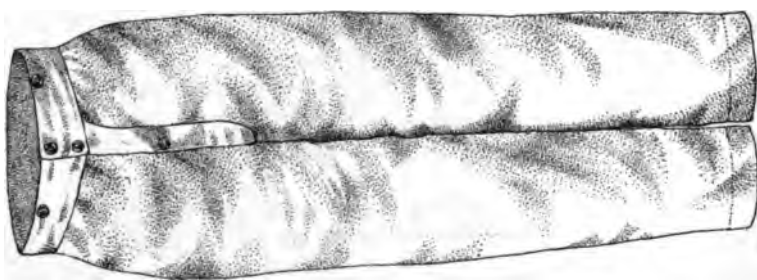
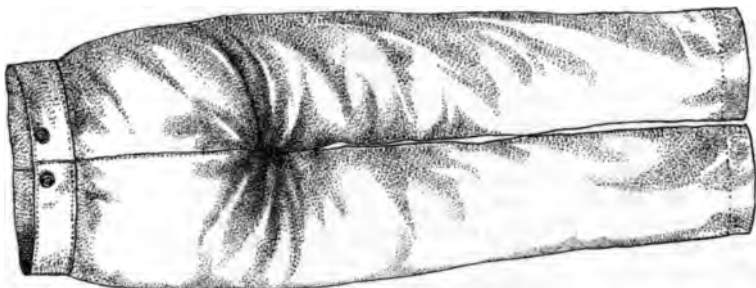
The total value of the clothing and equipage issued to the militia is \$112,638. This amount has been credited to the allotments for the several States and Territories.

The cost of transporting these stores during the last fiscal year was paid from the appropriation for Army transportation.

Under a decision of the honorable the Secretary of War, of June 23 last, the cost of transportation, as well as the cost of packing materials and of labor preparatory to forwarding the supplies, will hereafter be also chargeable against the appropriation for arming and equipping the militia.

PURCHASES AND ISSUES TO INDIAN PRISONERS OF WAR.

The amount expended for the purchase of clothing and materials for Indian prisoners of war confined at Fort Pickens, Fla., and Mount Vernon Barracks, Ala., was \$3,542.02. The appropriation for clothing and equipage has not been re-imbursed for the money value of



SUMMER OVERALLS.

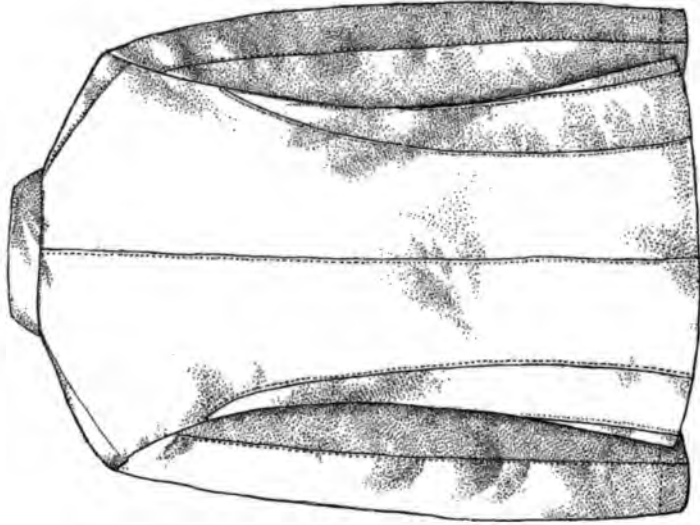
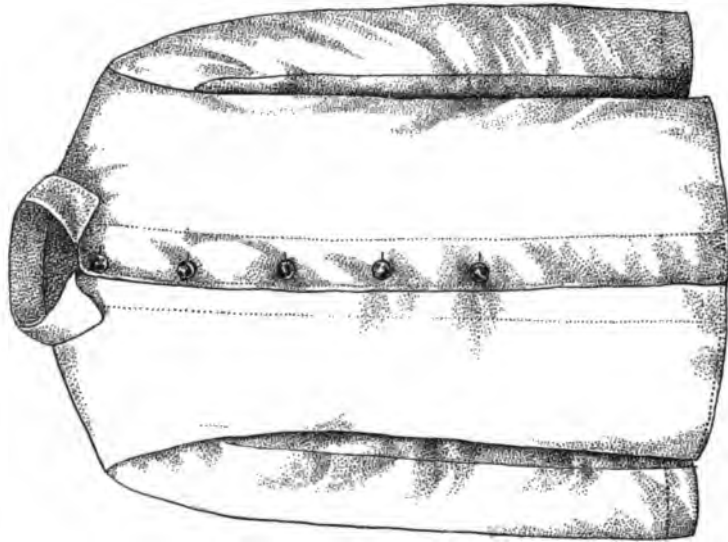
War50 2

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SUMMER TROUSERS.

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SUMMER SACK COAT.

the property. The estimated value of all the clothing, equipage, and materials that were issued to these Indians, consisting of articles drawn from stock of Army supplies, as well as those specially purchased, is \$4,157.29.

SALES AT AUCTION.

The sum of \$15,571.47 was realized at the general depots of the Quartermaster's Department from the sale of condemned articles of clothing, equipage, and materials, which has been covered into the Treasury of the United States.

MILITARY PRISON AT FORT LEAVENWORTH, KANS.

There were made at military prison at Fort Leavenworth, during the fiscal year, 8,183 pairs of boots, all kinds; 38,316 pairs of shoes, all kinds; 4,116 barrack chairs; 21,378 corn brooms.

SUMMER CLOTHING.

The subject of providing articles of lighter clothing to the troops stationed in extremely hot regions has for some time been under consideration by this department. How best to accomplish the object, with a due regard to economy and utility, has, it is thought, been solved.

A few garments made of cotton duck were sent for experimental issue in May, 1886, to troops in Texas. They gave such satisfaction that the Quartermaster-General, on the 18th of January last, recommended to the honorable the Secretary of War the manufacture of this class of clothing for all the troops stationed in the department of Texas. The Adjutant-General of the Army, on the 6th of February last, advised this office that the Secretary of War had approved of such issue.

Samples of various styles and grades of coats, trousers, and overalls were manufactured and submitted to the commanding general of the department of Texas, who selected such garments as, in his opinion, would meet the requirements of the service.

The articles consist of bleached cotton duck coats, trousers, and overalls for non-commissioned officers, and the same garments made of unbleached cotton duck for the privates.

The issue of these garments is not intended to increase the cost of clothing the Army, as they are to be charged to the soldiers at cost price without increasing their annual money allowance.

The clothing sent to Texas met such favor that the Quartermaster-General recommended to the honorable the Secretary of War, on the 18th of June last, that authority be granted to manufacture a supply for the troops serving in the departments of Arizona and the Missouri. This recommendation has been approved.

Purchase of the necessary materials is now being made. The manufacture has been commenced, and estimates have been called for from the commands who are to be supplied.

It is thought that the Department of the Missouri will be supplied during the present summer, but it is not likely that the posts in Arizona can be reached in time to be of use this year.

The introduction of this clothing, will, it is thought, do away with the necessity of issuing trousers manufactured of kersey of lighter quality. These trousers, although on the clothing-supply list, have never been called for to any extent, and might now well be dispensed with.

ALLOWANCE OF CLOTHING FOR THE ENLISTED MEN OF THE ARMY.

The following changes in the allowance of clothing to the enlisted men of the Army have been approved by the honorable the Secretary of War:

(1) Reduce the allowance of 3 dress coats and 12 pairs trousers during an enlistment of five years, to 2 coats and 10 pairs of trousers, making a saving of \$70,000 per annum.

(2) Increase the allowance of Berlin gloves of mounted men from 1 to 4 pairs per annum.

(3) Increase the allowance of cotton stockings from 2 to 6 pairs per annum.

(4) Add linen collars, barrack shoes, campaign hats, and fatigue coats and trousers to the allowance table.

(5) Permit the issue of two fatigue caps during the first year of enlistment instead of one as heretofore, and an order will soon be promulgated to the Army embodying the same. As a consequence it will be necessary to issue a new price-list of clothing and table of allowance, to take effect 1st of January next.

TENTS AND OTHER EQUIPAGE FOR GETTYSBURG RE-UNION.

In compliance with a joint resolution of Congress approved June 30, 1888, 1,000 tents and other equipage, such as picks, axes, shovels, mess-pans, and camp-kettles, were sent to Gettysburg, Pa., in care of one of the officers of this Department for sheltering and use of the veterans' organizations participating in the re-union of the survivors of the battle of Gettysburg, on July 1, 2, and 3 last. To do this it became necessary to send nearly all the tents on hand and required for issue to the Army and to the militia of the States, and immediately upon their return to the depot at Philadelphia, from whence they were obtained, they were sent to the troops for whom they were intended.

LOAN OF TENTS.

Frequent applications for the loan of tents are made upon this office by veterans and Grand Army organizations. But these requests can not be favorably entertained for the reason that the sanction of Congress is necessary, as there is no law and regulation under which the public property intrusted to the care of officers of the Quartermaster's Department could be diverted from its legitimate uses. Even if such authority was granted it would in most cases be impracticable to comply with such requests, as under the limited appropriation available only such number of tents as are actually needed for the Army and the militia can be provided. Any authority for the loan of such property should be accompanied by an appropriation to procure it.

BARRACK CHAIRS.

The barrack chair now in use is not considered of sufficient strength to warrant its continuance. The commandant of the Military Prison at Fort Leavenworth, Kansas, has been directed to procure and submit samples from which to select a suitable standard.

FORAGE CAPS, HELMETS, AND CAMPAIGN HATS.

It having been observed that a gradual falling off in the quality of the above articles of head gear had taken place, the Quartermaster-

General at the last annual contract letting directed that bids upon samples to be submitted by bidders should be invited. As a consequence samples of superior quality than those prescribed by existing standards and specifications were received. Those most suitable for service and whose cost was within the means of the Department were selected and contracts awarded accordingly.

NATIONAL CEMETERIES.

This branch of the office is in charge of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army.

At the commencement of the fiscal year there were 82 national cemeteries. No changes having been made, the number remains the same.

Four superintendents were appointed during the fiscal year, 2 resigned and 2 died, leaving 73 in service, the number allowed by law.

Removals of remains of deceased soldiers were made during the year from Fort Stockton to the national cemetery at San Antonio, Texas; from Fort Myers, Fla., to the Barrancas (Florida) National Cemetery; from Fort Larned, Kans., to Fort Leavenworth, Kans., and from Vinegar Hill, Morris Island, S. C., to the Beaufort (South Carolina) National Cemetery.

Three thousand five hundred head-stones to mark the graves of United States soldiers, sailors, and marines, buried in post and private, city and village cemeteries, were provided from the regular appropriation for that purpose, and contract made for the supply of 5,000 additional from the appropriation approved March 30, 1888.

Three monuments in lieu of head-stones, for graves of unknown United States soldiers in the post cemeteries at Plattsburgh, Madison Barracks, and Fort Niagara, for which contracts were made under authority from the honorable the Secretary of War, during the past fiscal year, have been completed.

The north, east, and west sides of the inclosing wall at the national cemetery at Corinth, Miss., have been rebuilt, and a pair of ornamental wrought-iron drive gates, with walk gate to match, have been provided for the principal entrance.

A pair of 12-foot wrought-iron drive gates have also been provided for the opening in the inclosing wall near the new out-building at the Andersonville (Georgia) National Cemetery.

The superintendent's lodge at the Natchez (Mississippi) National Cemetery has been raised and repairs and improvements made thereto, and permanent out-buildings have been erected in the Alexandria (Virginia), Andersonville (Georgia), Chattanooga, and Nashville (Tennessee), and Jefferson Barracks (Missouri) National Cemeteries; and a receiving-vault at the Cypress Hills (New York) National Cemetery.

The roadways, authorized by Congress, leading to the Richmond and Danville (Virginia) Cemeteries, and the repairs to the roads leading to the Vicksburg (Mississippi) National Cemetery have been completed; and under the appropriation for repairs to roadways constructed by special authority of Congress repairs have been made to the roads leading to the Chalmette (Louisiana), Fort Scott (Kansas), Knoxville (Tennessee), Mound City (Illinois), Natchez (Mississippi), New Albany (Indiana), and Springfield (Missouri) National Cemeteries.

An addition to the soldiers' lot in the Baxter Springs (Kansas City) Cemetery having been donated to the United States, the lot has been graded, put in order, inclosed with post-and-chain fence, and otherwise improved.

A picket fence has been erected on the north side of the soldiers' lot at the Woodlawn (New York) National Cemetery, and the wall forming the southern boundary repaired, and the ground cleaned up, graded, and sodded, and trees planted.

Under the appropriation made by Congress for the erection of suitable fences around the cemeteries in which Confederate dead are buried near Columbus, and on Johnson's Island, Ohio, and for putting the grounds in good condition, a stone wall with a 9-foot opening, provided with double iron gates hung on stone posts, has been constructed around the cemetery near Columbus, Ohio, and ground cleaned and leveled, and a large boulder placed in the centre of the inclosure, containing inscription as follows: "2,260 Confederate soldiers of the war of 1861 to 1865 are buried in this inclosure."

The cemetery on Johnson's Island near Sandusky, Ohio, has been inclosed with a suitable iron and steel strand fence, and it is contemplated to place a similar boulder in that inclosure, unless head-stones should be provided, as proposed by an association of ladies in Charleston, S. C.

A new survey was made, maps prepared defining the boundaries of the Government reservation on Greenwood Island, Mississippi, and were permanently marked by iron pipes driven 6 feet in the ground.

A statement showing the expenditures on account of national cemeteries during the fiscal year is herewith.

PORT MYER, VA., MILITARY RESERVATION.

In July, 1872, the Secretary of War declared all that part of the Arlington estate outside the walls of the Arlington National Cemetery to be the military reservation of Fort Whipple.

The estate mentioned consisted of about 1,100 acres and was the property of the wife of General Robert E. Lee, *nee* Custis. It was taken possession of by the United States early in the war of the rebellion, and seems to have been under the control of the Quartermaster's Department until 1885. A camp known as the contraband camp was there established, whereon was collected a number of colored persons from the insurrectionary States. Houses were constructed for their use upon that portion of the estate which became known as the Freedmen's Village.

About 200 acres of the estate, including the mansion and outbuildings, was set apart as a national cemetery in 1863.

In June, 1865, that portion outside the limits of the cemetery was transferred to the Freedmen's Bureau.

When the contraband camp was broken up the buildings which had been constructed for the use of the freedmen were sold to them. From the time of such sale, now about twenty years, the purchasers have improved their premises by reflooring, reroofing, plastering, etc., and additional structures have also been erected by them.

The holders of the improvements in question appear to have paid rental in money to the Freedmen's Bureau up to and including 1872, and subsequently to that time, in most cases, by labor or services rendered under the direction of the commanding officer of Fort Whipple (now Fort Myer) for the benefit of that post.

The Arlington estate was purchased by the United States at a tax-sale in 1864, and on the 3d of March, 1883, Congress made an appropriation of \$150,000 to enable the Secretary of War to remove all claims and pretention in respect of this property, and the United States obtained a deed for the property from Mr. G. W. C. Lee.

The regulations of the Army set forth that no "civilian will be permitted to reside upon a military reservation unless he be in the employ of the Government, and his residence thereon must cease upon his discharge from such employment." It does not appear that any steps were taken towards enforcing such regulations against the colored occupants of the buildings, purchased or constructed by them, until some time in the fall of 1887, when, it is understood, that instructions were given for their removal; but subsequently, on the 9th of December last, the Secretary of War directed "that any orders or instructions directing the removal or notice of removal of or to persons on the Fort Myer military reservation be suspended."

Following this the Quartermaster-General, under instructions from the Secretary of War, appointed a board to examine and report upon the occupation of the reservation in question by unauthorized citizens and others.

This board found that there were on the reservation, outside of the Arlington National Cemetery at Fort Myer, 124 dwellings, 2 small churches, 1 school-house, and 3 shops. The population consisted of 170 families, the members of which numbered 338 adults and 425 minors. The board found the valuation of the buildings and improvements to be about \$12,000.

In view of the fact that the persons in question have been permitted for a number of years to reside upon this reservation, that they have paid in money or by labor for the privilege, and in some instances having purchased from Government officers certain of the buildings, the board recommended that after their removal shall be enjoined they be paid for their buildings and improvements at the valuation fixed in each case, and in this recommendation the Quartermaster-General concurs. And it is understood that an appropriation has been asked of Congress so that such payment could be made.

In conclusion it is with pleasure that I bear willing testimony to the valuable and faithful services to the Government of the officers and employés of this Department, both in the bureau in Washington and throughout the Department.

S. B. HOLABIRD,
Quartermaster-General, U. S. Army.

HON. WILLIAM C. ENDICOTT,
Secretary of War.

List of papers accompanying the annual report of the Quartermaster-General for the fiscal year ending June 30, 1888.

1. Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the inspection branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

2. Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the finance branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

3. Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the money and property accounts branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

A.—Statement showing number of accounts and returns examined during fiscal year ending June 30, 1888.

B.—Statement showing the amount received from sales of quartermaster's stores to officers and soldiers during the fiscal year ending June 30, 1888.

C.—Statement showing in detail the amounts expended under the various appropriations (excepting appropriation army transportation) for the fiscal year ending June 30, 1888, and supplement pertaining to fiscal year ending June 30, 1887.

D.—Statement showing in detail amounts expended on account of the appropriation for transportation of the Army for the fiscal year ending June 30, 1888.

E.—Abstract of payments during the fiscal year ending June 30, 1888, to railroads and express companies on account of appropriation for transportation of the Army.

F.—Abstract of payments during the fiscal year ending June 30, 1888, for water transportation.

G.—Abstract of payments during the fiscal year ending June 30, 1888, for wagon transportation.

H.—Abstract of payments during the fiscal year ending June 30, 1888, for stage transportation.

I.—Statement showing number of civilian employes employed by the month as reported by officers of the Quartermaster's Department on their report of persons for June, 1888.

K.—Statement of amounts expended by each officer serving in the Quartermaster's Department during the fiscal year ending June 30, 1888.

4. Report of Lieut. Col. C. G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the clothing and equipage returns branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

5. Report of Lieut. Col. C. G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the barracks and quarters branch of the Quartermaster-General's Office during fiscal year ending June 30, 1888.

A.—Statement compiled from reports thus far received showing expenditures actually made on account of repair and construction of public buildings at various posts during the fiscal year ending June 30, 1888.

B.—Statement showing property rented by the Quartermaster's Department and in service June 30, 1888.

C.—Statement of the military reservations in the several States and Territories, showing location, size, and how occupied.

6. Report of Maj. James Gilliss, quartermaster, U. S. Army, of the operations of the transportation, regular supplies, and miscellaneous claims and accounts branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

A.—Statement of all troops and property transported under direction of the Quartermaster's Department during the fiscal year ending June 30, 1888.

B.—Table showing the principal movements of troops during the fiscal year ending June 30, 1888.

C.—Statement of vessels owned or purchased by the Government and employed in the Quartermaster's Department during the fiscal year ending June 30, 1888.

D.—Statement of vessels chartered, impressed, and employed by the Quartermaster's Department during the fiscal year ending June 30, 1888.

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department received at the office of the Quartermaster-General during the fiscal year ending June 30, 1888.

7. Report of Lieut. Col. B. C. Card, deputy quartermaster-general, U. S. Army, of the operations of the claims branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

8. Report of Capt. John F. Rodgers, military store-keeper, U. S. Army, of the operations of the clothing supply branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1888.

A.—Statement showing articles of clothing and equipage materials on hand at the issuing depots of the Quartermaster's Department June 30, 1887, the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Army, and the quantities remaining in depot June 30, 1888.

B.—Detailed statement of the articles of clothing, equipage, and materials purchased by the Quartermaster's Department and paid for from the appropriation for clothing and equipage during the fiscal year ending June 30, 1888.

C.—Statement of amounts received and remitted by the Quartermaster's Department on account of clothing and equipage during the fiscal year ending June 30, 1888.

D.—Statement showing remittances on account of clothing and equipage during the fiscal year ending June 30, 1888.

E.—Statement showing articles of clothing and equipage manufactured at the military prison, Fort Leavenworth, Kans., for the Quartermaster's Department during the fiscal year ending June 30, 1888. Also cost of materials, labor, etc.

F.—Statement showing value of labor performed for the Quartermaster's Department by the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

G.—Statement showing articles of clothing and equipage issued to the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

H.—Statement showing articles of quartermaster's stores issued to the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

I.—Statement showing articles of clothing, equipage, and materials issued to the militia of the States and Territories under the act of Congress amending section 1661, Revised Statutes, during the fiscal year ending June 30, 1888. Also money value of same which has been placed to credit of appropriation for clothing and equipage.

K.—Statement showing articles of clothing, equipage, and quartermaster's stores issued to Indian prisoners during the fiscal year ending June 30, 1888.

L.—Statement showing number and cost of articles and materials purchased for issue to Indian prisoners during the fiscal year ending June 30, 1888.

M.—Statement showing average prices at which the various articles of clothing and equipage are charged to the Army of the United States from July 1, 1888, to June 30, 1889.

9. Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the affairs relating to the care and maintenance of the national cemeteries during the fiscal year ending June 30, 1888.

A.—Statement of disbursements of appropriation for national cemeteries during the fiscal year ending June 30, 1888.

1.—*Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the inspection branch during the fiscal year ending June 30, 1888.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., July 21, 1888.

GENERAL: I have the honor to submit a report of the operations of the inspection branch of this office during the fiscal year ending June 30, 1888.

The duties pertaining to this branch are, principally, the conducting of all correspondence relating to the assignment of officers of the Quartermaster's Department to stations, and matters relating individually to officers, clerks, and other employés doing duty therein; also the preparation of the biennial and annual reports, monthly roster, monthly return of officers of the Quartermaster's Department, monthly and semi-monthly pay-rolls of the clerks and messengers, etc., of the Quartermaster-General's Office, and the distribution of orders, circulars, and all other printed matter for use of the officers of the Quartermaster's Department.

Action is also taken therein on all matters pertaining to the application, examination, appointment, and assignment of post quartermaster-sergeants, U. S. Army.

The 80 post quartermaster-sergeants authorized by law are in the service, and their services are reported as satisfactory.

The station-book, book of decisions, historical record of officers of the Quartermaster's Department and clerks in the Quartermaster-General's office are kept in this branch, and all other necessary record-books required in connection with the above-described work.

Letters received during last fiscal year.....	8,206
Communications written during last fiscal year.....	1,500
Orders, circulars, books, etc., distributed during last fiscal year.....	85,413

The officers of the Quartermaster's Department (regular establishment) are as follows: One Quartermaster-General, 4 assistant quartermasters-general, 8 deputy quartermasters-general, 14 quartermasters, 30 assistant quartermasters, 4 military store-keepers.

Very respectfully, your obedient servant,

C. G. SAWTELLE,
Deputy Quartermaster-General, U. S. Army.
The QUARTERMASTER-GENERAL, U. S. ARMY.

2.—*Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the finance branch for the fiscal year ending June 30, 1888.*

This branch has charge of matters relating to the procurement and distribution of funds; the compilation and preparation for Congress of the annual estimates of funds for the service of the Quartermaster's Department and for funds required for the Quartermaster-General's office; the examination of estimates of funds received from disbursing officers, and the issue of requests on the Secretary of War for requisitions in favor of such disbursing officers; the action upon settlements made at the Treasury of claims and accounts pertaining to the Quartermaster's Department; the abstracting of weekly and monthly statements of funds for comparison with the Treasury records, and the conducting of the necessary correspondence, and the keeping of the prescribed records and necessary memorandum-books connected with the foregoing.

From the balance-books, upon which all debits and credits are recorded, the following statement has been prepared:

H.—Statement showing articles of quartermaster's stores issued to the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

I.—Statement showing articles of clothing, equipage, and materials issued to the militia of the States and Territories under the act of Congress amending section 1661, Revised Statutes, during the fiscal year ending June 30, 1888. Also money value of same which has been placed to credit of appropriation for clothing and equipage.

K.—Statement showing articles of clothing, equipage, and quartermaster's stores issued to Indian prisoners during the fiscal year ending June 30, 1888.

L.—Statement showing number and cost of articles and materials purchased for issue to Indian prisoners during the fiscal year ending June 30, 1888.

M.—Statement showing average prices at which the various articles of clothing and equipage are charged to the Army of the United States from July 1, 1888, to June 30, 1889.

9. Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the affairs relating to the care and maintenance of the national cemeteries during the fiscal year ending June 30, 1888.

A.—Statement of disbursements of appropriation for national cemeteries during the fiscal year ending June 30, 1888.

1.—*Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the inspection branch during the fiscal year ending June 30, 1888.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., July 21, 1888.

GENERAL: I have the honor to submit a report of the operations of the inspection branch of this office during the fiscal year ending June 30, 1888.

The duties pertaining to this branch are, principally, the conducting of all correspondence relating to the assignment of officers of the Quartermaster's Department to stations, and matters relating individually to officers, clerks, and other employes doing duty therein; also the preparation of the biennial and annual reports, monthly roster, monthly return of officers of the Quartermaster's Department, monthly and semi-monthly pay-rolls of the clerks and messengers, etc., of the Quartermaster-General's Office, and the distribution of orders, circulars, and all other printed matter for use of the officers of the Quartermaster's Department.

Action is also taken therein on all matters pertaining to the application, examination, appointment, and assignment of post quartermaster-sergeants, U. S. Army.

The 80 post quartermaster-sergeants authorized by law are in the service, and their services are reported as satisfactory.

The station-book, book of decisions, historical record of officers of the Quartermaster's Department and clerks in the Quartermaster-General's office are kept in this branch, and all other necessary record-books required in connection with the above-described work.

Letters received during last fiscal year.....	8,206
Communications written during last fiscal year.....	1,500
Orders, circulars, books, etc., distributed during last fiscal year.....	85,413

The officers of the Quartermaster's Department (regular establishment) are as follows: One Quartermaster-General, 4 assistant quartermasters-general, 8 deputy quartermasters-general, 14 quartermasters, 30 assistant quartermasters, 4 military store-keepers.

Very respectfully, your obedient servant,

C. G. SAWTELLE,

Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

2.—*Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the finance branch for the fiscal year ending June 30, 1888.*

This branch has charge of matters relating to the procurement and distribution of funds; the compilation and preparation for Congress of the annual estimates of funds for the service of the Quartermaster's Department and for funds required for the Quartermaster-General's office; the examination of estimates of funds received from disbursing officers, and the issue of requests on the Secretary of War for requisitions in favor of such disbursing officers; the action upon settlements made at the Treasury of claims and accounts pertaining to the Quartermaster's Department; the abstracting of weekly and monthly statements of funds for comparison with the Treasury records, and the conducting of the necessary correspondence, and the keeping of the prescribed records and necessary memorandum-books connected with the foregoing.

From the balance-books, upon which all debits and credits are recorded, the following statement has been prepared:

Appropriations.	Balance in Treasury undrawn July 1, 1887.	Appropriated.		Placed to credit of appropriations during the year, being proceeds of sales to officers, etc.	Total to be accounted for.	Remitted to disbursing officers.	Requisitions issued on settlements made at Treasury of claims and accounts.	Amounts carried to surplus fund, act June 20, 1874.	Balance in Treasury undrawn June 30, 1888, required for outstanding obligations.	Total accounted for.
		Amount.	Date of act.							
1871 and prior years.										
Transportation of officers and their baggage.....		\$142.00	Mar. 30, 1868	\$81.88	\$223.88		\$142.00	\$81.88		\$223.88
1879 and prior years.										
Regular supplies.....	\$267.75				267.75				\$267.75	267.75
1882 and prior years.										
Regular supplies.....	200.00				200.00				200.00	200.00
Barracks and quarters.....	300.00				300.00				300.00	300.00
Total.....	500.00				500.00				500.00	500.00
1883 and prior years.										
Transportation of the Army and its supplies.....	3.79				3.79				3.79	3.79
1885 and prior years.										
Regular supplies.....		1,882.41	Feb. 4, 1888	5,042.04	11,949.78		6,707.74	5,242.04		11,949.78
Incidental expenses.....		6,525.38	Mar. 30, 1888	936.50	4,904.79		3,714.29	1,190.50		4,904.79
Horses for cavalry and artillery.....		1,850.52	Feb. 4, 1888	2,371.51	9,045.94		6,310.93	2,735.01		9,045.94
Barracks and quarters.....		3,964.51	Feb. 4, 1888	11,540.28	30,146.74		18,606.46	11,540.28		30,146.74
Transportation of the Army and its supplies.....		13,977.81	Feb. 4, 1888	8,933.11	51,963.83		38,512.80	11,783.10	1,055.93	51,963.82
Clothing, camp and garrison equipage.....		20,062.75	Feb. 4, 1888	229.26	1,695.53		1,466.27	229.26		1,695.53
Gun-boats on western rivers.....		27,367.97	Mar. 30, 1888		42.48		42.48			42.48
		1,154.63	Feb. 4, 1888							
		20.56	Feb. 4, 1888							
		21.92	Mar. 30, 1888							

Appropriations.	Appropriated.		Placed to credit of appropriations during the year, being proceeds of sales to officers, etc.	Total to be accounted for.	Remitted to discharging officers.	Requisitions issued on settlements made at Treasury claims and accounts.	Amounts carried to surplus fund, set June 20, 1874.	Balance in Treasury undrawn June 30, 1888, required for outstanding obligations.	Total accounted for.
	Amount.	Date of act.							
1885 and prior years—Continued.									
Construction and repair of hospitals.	\$3,184.80	Feb. 4, 1888	{ \$5,400.11 }	\$10,769.22		\$5,399.11	\$5,400.11		\$10,769.22
Fifty per centum of arrears of Army transportation due certain land-grant railroads.	2,214.22	Mar. 30, 1888							
	6,561.84	Feb. 4, 1888							
	9,121.07	Mar. 30, 1888			15,073.81		15,073.81		15,073.81
Total	100,169.31		29,452.81	128,622.12		96,440.89	38,125.30	\$1,055.83	128,622.12
Transfer account, 1885 and prior years.									
Regular supplies.			732.05	732.05		14.40	737.65		732.05
Incidental expenses.			849.10	849.10		849.10			849.10
Horses for cavalry and artillery.			71.00	71.00			71.00		71.00
Barracks and quarters.			194.79	194.79			194.79		194.79
Transportation of the Army and its supplies.			265.82	265.82			265.82		265.82
Clothing, camp and garrison equipage.			191.32	191.32			191.32		191.32
Total			2,324.08	2,324.08		963.50	1,460.58		2,324.08
Transfer account, 1886 and prior years.									
Transportation of the Army and its supplies. . . . .			.50	.50			.50		.50
Transfer account, 1887.									
Regular supplies.			8.40	8.40			3.40		3.40
1885.									
Transportation of the Army and its supplies.	300.30			800.30		117.47		182.83	300.30
Clothing, camp and garrison equipage.	13,324.54			13,324.54				13,324.54	13,324.54
Total	13,624.84			13,624.84		117.47		13,517.37	13,624.84

QUARTERMASTER-GENERAL.

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1886.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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1881

1886.	1887.	1888.
Regular supplies.....	Regular supplies.....	Regular supplies.....
Incidental expenses.....	Incidental expenses.....	Incidental expenses.....
Horses for cavalry and artillery.....	Horses for cavalry and artillery.....	Horses for cavalry and artillery.....
Barracks and quarters.....	Barracks and quarters.....	Barracks and quarters.....
Transportation of the Army and its supplies.....	Transportation of the Army and its supplies.....	Transportation of the Army and its supplies.....
Clothing, garrison and camp equipage.....	Clothing, camp and garrison equipage.....	Clothing, camp and garrison equipage.....
National cemeteries.....	National cemeteries.....	National cemeteries.....
Pay of superintendents of national cemeteries.....	Pay of superintendents of national cemeteries.....	Pay of superintendents of national cemeteries.....
Construction and repair of hospitals.....	Construction and repair of hospitals.....	Construction and repair of hospitals.....
Fifty per centum of arrears of Army transportation due certain land-grant railroads.....	Fifty per centum of arrears of Army transportation due certain land-grant railroads.....	Fifty per centum of arrears of Army transportation due certain land-grant railroads.....
Shooting galleries and ranges.....	Shooting galleries and ranges.....	Shooting galleries and ranges.....
Construction of quarters for hospital stewards.....	Construction of quarters for hospital stewards.....	Construction of quarters for hospital stewards.....
Total.....	Total.....	Total.....

1881

1886.	1887.	1888.
Regular supplies.....	Regular supplies.....	Regular supplies.....
Incidental expenses.....	Incidental expenses.....	Incidental expenses.....
Horses for cavalry and artillery.....	Horses for cavalry and artillery.....	Horses for cavalry and artillery.....
Barracks and quarters.....	Barracks and quarters.....	Barracks and quarters.....
Transportation of the Army and its supplies.....	Transportation of the Army and its supplies.....	Transportation of the Army and its supplies.....
Clothing, garrison and camp equipage.....	Clothing, camp and garrison equipage.....	Clothing, camp and garrison equipage.....
National cemeteries.....	National cemeteries.....	National cemeteries.....
Pay of superintendents of national cemeteries.....	Pay of superintendents of national cemeteries.....	Pay of superintendents of national cemeteries.....
Construction and repair of hospitals.....	Construction and repair of hospitals.....	Construction and repair of hospitals.....
Fifty per centum of arrears of Army transportation due certain land-grant railroads.....	Fifty per centum of arrears of Army transportation due certain land-grant railroads.....	Fifty per centum of arrears of Army transportation due certain land-grant railroads.....
Shooting galleries and ranges.....	Shooting galleries and ranges.....	Shooting galleries and ranges.....
Construction of quarters for hospital stewards.....	Construction of quarters for hospital stewards.....	Construction of quarters for hospital stewards.....
Total.....	Total.....	Total.....

Appropriations.	Appropriated.		Placed to credit of appropriations during the year, being proceeds of sales to officers, etc.	Total to be accounted for.	Remitted to disbursing officers.	Requisitions issued on settlements made at Treasury of claims and accounts.	Amounts carried to surplus fund, act June 20, 1874.	Balance in Treasury undrawn June 30, 1888, required for outstanding obligations.	Total accounted for.
	Amount.	Date of act.							
1888—Continued.									
Construction and repair of hospitals.	\$100,000.00	Feb. 9, 1887.	\$5,525.38	\$105,525.38	\$105,210.38			\$315.00	\$105,525.38
Fifty per centum of arrears of Army transportation due certain land-grant railroads.	50,000.00	do	19.86	50,019.86		\$28,099.37		23,920.53	50,019.86
Shooting galleries and ranges.	10,000.00	do	250.30	10,250.30	10,172.80	16.54		60.96	10,250.30
Quarters for hospital stewards.	9,000.00	do	804.84	10,404.84	10,394.02			10.82	10,404.84
Total	8,382,600.00		357,549.08	8,740,149.08	8,208,850.42	189,914.11		343,384.55	8,740,149.08
Indefinite or special.									
Purchase of site for Fort Brown, Tex.	\$25,000.00			25,000.00				25,000.00	25,000.00
Purchase of Fort Brown Reservation, Tex.	160,000.00			160,000.00				160,000.00	160,000.00
Remodeling old Produce Exchange Building, New York City	92,823.00			92,823.00	76,003.00	16,820.00		34,725.51	92,823.00
Military posts.	48,578.87	Mar. 3, 1887	1,239.17	249,818.04	215,092.53				249,818.04
Military post for the protection of the Rio Grande frontier.	67			67				67	67
Military post at Fort McKinney, Wyo.	206.00			206.00				206.00	206.00
Military post near northern boundary of Montana (Fort Assiniboine).	25			25				25	25
Fort Gratiot Cemetery, Mich.	110.75			110.75				110.75	110.75
Carson City Cemetery, Nev.	512.50			512.50				512.50	512.50
Road from Chattanooga to the national cemetery, Tenn.	54.14			54.14				54.14	54.14
Road from Fort Scott to national cemetery, Kans.	873.70		68.27	941.97				941.97	941.97
Road from Springfield to national cemetery, Mo.	.09			.09				.09	.09
Road from Baton Rouge to national cemetery, La.	6,000.00			6,000.00				6,000.00	6,000.00
Road from Marietta to national cemetery, Ga.	5,000.00			5,000.00				5,000.00	5,000.00
Head-stones for graves of soldiers.	1,179.39	Mar. 3, 1887		36,179.39	17,802.50	5,049.49		13,327.40	36,179.39
Academic Building, Military Academy.	65,000.00	Mar. 30, 1888		65,000.00	3,000.00			62,000.00	65,000.00
Gymnasium, Military Academy.	34,000.00			34,000.00				34,000.00	34,000.00

QUARTERMASTER-GENERAL.

Payment to Salt Lake Rock Company for land and water rights in Utah	20,000.00				20,000.00				20,000.00
Fort Brady military post, Mich	120,000.00				120,000.00				120,000.00
Military post near Denver, Colo	100,000.00				100,000.00				100,000.00
Military post at Fort D. A. Russell, Wyo	30,000.00				30,000.00				30,000.00
Military post at Fort Robinson, Nebr	55,000.00				55,000.00				55,000.00
Military post near Newport, Ky., site	60,000.00	7.00			60,007.00			16,531.55	60,007.00
Military post near Newport, Ky., building	100,000.00				100,000.00			98,929.83	100,000.00
Purchase of drill ground near San Antonio, Tex	345.00				\$345.00			\$345.00	\$345.00
Buildings for cavalry and artillery school, Fort Riley, Kans	197,500.00				197,500.00				197,500.00
Road from Natchez, Miss., to the national cemetery		6,106.29	Feb. 1, 1888		6,106.29			6,106.29	6,106.29
Road to the national cemetery at Chalmette, La		95.60			95.60			95.60	95.60
Road to the national cemetery, Knoxville, Tenn		29.33			29.33			29.33	29.33
Road to the national cemetery near Pineville, La		11,000.00	Apr. 15, 1888		11,000.00			11,000.00	11,000.00
Road to national cemetery near Richmond, Va	25,000.00				25,000.00				25,000.00
Road from Corinth to the national cemetery, Miss		10,000.00	Apr. 21, 1888		10,000.00			10,000.00	10,000.00
Approaches to the national cemetery near Danville, Va	10,000.00				10,000.00				10,000.00
Road from Vicksburg to the national cemetery, Miss	10,000.00				10,000.00				10,000.00
Army and Navy Hospital, Hot Springs, Ark		7,500.00	Feb. 9, 1887	6.85	7,506.85	7,500.00	6.85		7,506.85
Repairing roads to national cemeteries	3,000.00		Mar. 3, 1887		3,000.00	2,990.00		10.00	3,000.00
Cemetery fence, Fort Winnebago, Wis	2,500.00		do		2,500.00	2,500.00			2,500.00
Confederate cemeteries near Columbus, Ohio		2,000.00	do		2,000.00	1,746.54		253.46	2,000.00
Army depot building, Saint Paul, Minn					.16	.16		.16	.16
Building for military quarters at Fort Apache, Ariz					.70			.70	.70
Establishment of military reservation at Fort Robinson, Nebr	2,500.00		Mar. 30, 1888		2,500.00			2,500.00	2,500.00
Relief of Peter Murak and six others	2,796.24		Apr. 4, 1888		2,796.24			2,796.24	2,796.24
Relief of John C. Adams, administrator of Joseph Adams, deceased	4,435.00		May 9, 1888		4,435.00			4,435.00	4,435.00
Relief of B. M. Parish	635.00		June 18, 1888		635.00				635.00
Total	1,167,184.36	287,966.24		1,553.87	1,450,103.97	701,680.19	52,242.58	702,181.20	1,450,103.97

Appropriations.	Balance in Treasury July 1, 1887.	Appropriated.		Placed to credit of appropriations during the year, being pro- ceeds of sales to officers, etc.	Total to be accounted for.	Remitted to disbursing officers.	Requid- tions issued on settle- ments made at Treas- ury of claims and accounts.	Amounts carried to surplus fund, act June 20, 1874.	Balance in Treasury undrawn June 30, 1888, required for outstanding obligations.	Total ac- counted for.	
		Amount.	Date of act.								
<i>Army transportation.</i>											
Pacific roads, 1885 and prior years		\$192.47	June 30, 1888		\$192.47		\$192.47			\$192.47	
1886		51,868.61	do		51,868.61		51,868.61			51,868.61	
1887		194,974.16	do	\$98.23	195,072.39		195,072.39			195,072.39	
1888		44,744.88	do	86.59	44,831.47		44,831.47			44,831.47	
Total		291,780.12		184.82	291,964.94		291,964.94			291,964.94	
Grand total	\$1,469,239.56	9,218,037.67		778,222.23	11,465,510.46	\$9,008,573.60	936,177.15	\$203,265.14	\$1,317,563.57	11,465,510.46	

NOTE.—Of the \$267,857.01 appropriated by act of July 5, 1884, for claims for "quartermaster's stores and commissary supplies," requisition has been issued from this office for \$2.11. Of the \$181,633.07 appropriated by act of March 3, 1887, for claims for "quartermaster's stores and commissary supplies," requisitions have been issued from this office for \$1,393. Of the \$297.39 appropriated by act of March 30, 1888, for 20 per cent. additional compensation prior to July 1, 1885, covered by war-relief warrant No. 13, the books of this branch show payment of \$128.73. Of the \$159.69 appropriated by act of February 1, 1888, for 20 per cent. additional compensation prior to July 1, 1885, covered by war-relief warrant No. 10, the books of this branch show payment of \$159.69. Of \$148,053.10 appropriated by act of March 30, 1888, for horses and other property lost in the military service prior to July 1, 1885, there has been remitted to disbursing officers the sum of \$145,371.64.

The following tables, made up from the estimates of funds received from disbursing officers of the Quartermaster's Department, show the amounts asked by them and the amounts supplied from the regular appropriations for the fiscal year 1887-'88, as well as from the indefinite or special appropriations disbursed by the Quartermaster's Department.

Amounts estimated for from regular appropriations.

Divisions, departments, etc.	Regular supplies.	Incidental expenses.	Cavalry and artillery horses.	Barracks and quarters.	Transportation of the Army and its supplies.	Clothing, camp and Garrison equipage.	Construction and repair of hospitals.	National cemeteries.	Pay of superintendents of national cemeteries.	Shooting galleries and ranges.	Construction of quarters for live-pital stewards.	Total.
Division of the Atlantic.....	\$103,415.91	\$69,505.21	\$54.48	\$104,929.20	\$205,436.17	\$74.00	\$5,293.71	\$477.00	.....	\$3,255.41	\$3,455.00	\$387,266.90
Headquarters Division of the Missouri.....	13,790.26	28,510.00	.....	20,822.20	93,445.08	6.85	.....	15.00	.....	476.07	.....	165,569.85
Department of the Missouri.....	261,320.84	48,870.64	.....	51,234.16	292,431.20	17.00	20,925.68	.....	.....	488.60	225.69	699,094.68
Department of Dakota.....	529,755.25	67,962.42	23,546.60	53,415.62	239,940.50	1,348.23	26,692.36	.....	.....	.....	1,494.26	961,563.84
Department of the Platte.....	361,517.96	63,520.10	.....	45,620.06	171,918.65	25.00	16,390.66	.....	.....	725.00	911.00	660,638.45
Department of Texas.....	292,042.95	46,102.83	37,450.00	46,352.85	172,285.00	4.00	8,329.28	.....	.....	2,825.00	635.63	605,508.14
Total Division of the Missouri.....	1,455,453.26	254,986.59	85,104.10	226,444.97	990,021.03	1,410.88	73,237.88	15.00	.....	4,014.67	2,266.38	3,092,994.96
Department of California.....	103,529.18	41,080.15	6,180.00	41,929.50	131,854.72	.....	1,768.89	.....	.....	1,700.72	830.05	328,539.81
Department of the Columbia.....	183,414.62	20,255.33	5,850.00	54,538.21	141,758.84	.....	1,663.13	.....	.....	642.00	708.81	417,642.96
Department of Arizona.....	567,658.34	51,910.15	24,760.00	79,810.00	208,090.60	.....	19,129.30	.....	.....	500.00	2,096.88	957,614.87
Total Division of the Pacific.....	854,602.14	125,284.63	36,540.00	176,277.31	482,504.16	.....	22,560.32	.....	.....	2,902.72	8,726.86	1,704,197.64
Depot at New York.....	89,740.93	29,863.71	.....	41,908.26	173,941.50	.....	.....	241.00	.....	.....	.....	285,758.90
Depot at Philadelphia.....	8,073.81	25,582.27	.....	4,549.19	22,728.00	3.50	.....	3,804.12	.....	.....	.....	890,728.97
Depot at Washington.....	29,622.66	28,401.40	.....	6,211.48	58,106.40	822,536.48	.....	34,086.42	.....	.....	.....	173,180.19
Depot at Jeffersonville.....	98,828.69	48,249.03	.....	2,673.08	133,539.18	161,984.02	.....	.....	.....	.....	.....	443,287.00
Depot at St. Louis.....	6,984.67	18,821.18	6,769.21	9,392.41	98,865.84	101,468.12	.....	10,746.55	.....	10,619.67	.....	175,637.05
Depot at San Francisco.....	22,325.03	19,685.62	.....	13,228.96	56,861.43	259,425.45	.....	576.55	.....	460.00	.....	374,633.34
Columbus Barracks.....	9,661.24	4,821.51	.....	7,400.56	19,659.21	.....	.....	.....	.....	.....	.....	41,611.08
Jefferson Barracks.....	20,665.18	6,703.41	.....	1,850.56	3,827.32	.....	991.70	.....	.....	.....	.....	31,018.87
West Point, N. Y.....	24,519.10	9,113.59	.....	.....	3,635.49	.....	413.00	.....	.....	.....	.....	37,983.14
Willits Point, New York Harbor.....	21.82	2,248.49	.....	6,490.41	12,089.25	55.00	60.00	.....	.....	.....	.....	20,563.97
David's Island, New York Harbor.....	648.00	4,437.56	.....	21,175.90	19,628.33	.....	2,279.18	.....	.....	.....	.....	48,168.97
Springfield Armory.....	1,828.12	330.00	.....	.....	.....	.....	.....	7,194.54	.....	.....	.....	2,158.12
Louisville, Ky. (disbursing agency).....	317.94	2,122.00	3,325.00	215.96	16,068.85	.....	.....	.....	0.420.00	.....	.....	36,664.11

Amounts estimated for from regular appropriations—Continued.

Divisions, departments, etc.	Regular supplies.	Incidental expenses.	Cavalry and artillery horses.	Barracks and quarters.	Transportation of the Army and its supplies.	Clothing, camp and garrison equipage.	Construction and repair of hospitals.	National cemeteries.	Pay of superintendents of national cemeteries.	Shooting galleries and ranges.	Construction of quarters for hospital stewards.	Total.
Military prison, Fort Leavenworth, Kans.	\$21,839.73	\$5,710.02			\$10,470.18	\$104,499.31	\$496.74					\$148,975.97
Hot Springs, Ark.	3,089.33	2,312.94		\$150.05	1,067.09		400.00					7,017.32
Atlanta (Ga. (military post))	4,718.88	2,481.50		180.00	45,815.74							53,235.02
Atlanta (Ga. (cemetery))	3,417.58	2,571.00		309.00	45,350.00			\$40,495.10	\$17,931.84			63,074.90
Powder depot, Dover, N. J.	56.50											56.50
Allegany Arsenal	779.55	15.00		50.87	131.79							977.12
Augusta Arsenal	1,041.57	383.00			75.80							1,500.37
Benicia Arsenal	2,307.50	24.00			516.78							2,878.08
Frankford Arsenal	92.50	4.00		120.00	1,011.48							1,247.98
Kennebec Arsenal	1,181.34	45.00			50.00							1,306.34
Indianapolis Arsenal	850.92											850.92
Rock Island Arsenal	3,114.76	160.00			1,298.00			10.00				4,582.76
Watertown Arsenal	2,339.01	129.10			445.70							2,914.41
Watervliet Arsenal	2,116.14	183.95			1,010.00							3,310.09
Total depots, posts, etc.	303,958.26	211,841.72	\$10,064.21	114,963.09	691,424.21	1,301,968.48	4,632.08	97,921.18	60,408.34			3,868,697.76
Grand total	2,897,409.56	661,118.15	182,312.79	622,615.17	2,809,185.57	1,863,448.36	105,794.59	98,413.18	60,408.84	\$10,172.80	\$10,448.94	\$6,261,287.85

Amounts remitted from regular appropriations.

Divisions, departments, etc.	Regular supplies.	Incidental expenses.	Cavalry and artillery horses.	Barracks and quarters.	Transportation of the Army and its supplies.	Clothing, camp and garrison equipage.	Construction and repair of hospitals.	National cemeteries.	Pay of superintendents of national cemeteries.	Shooting galleries and ranges.	Construction of quarters for hospital stewards.	Total.
Division of the Atlantic	\$191,056.03	\$69,209.43	\$524.48	\$103,848.18	\$204,243.78	\$74.90	\$45,293.71	\$477.00	.....	\$3,253.41	\$3,401.08	\$352,383.10
Headquarters Division of the Missouri	13,790.26	28,204.76	.....	29,822.26	92,775.85	6.65	20,923.68	15.00	.....	.....	.....	104,614.28
Department of Missouri	260,662.37	48,870.64	24,187.50	50,422.30	291,672.72	17.00	24,078.15	.....	.....	476.07	225.69	697,350.77
Department of Dakota	525,575.33	67,982.43	23,546.00	53,415.62	297,400.49	1,248.43	18,390.66	.....	.....	488.60	1,434.26	897,990.90
Department of Kansas	300,716.69	63,339.81	44,260.11	44,260.11	170,189.77	35.00	16,390.66	.....	.....	725.00	841.00	651,566.54
Department of Platte	290,420.59	46,102.83	37,430.00	46,061.75	170,022.39	4.00	8,336.28	.....	.....	2,325.00	635.63	601,331.47
Total Division of the Missouri	1,451,164.14	254,480.96	85,164.10	223,982.04	902,050.72	1,411.08	71,723.07	15.00	.....	4,014.67	3,266.58	3,077,291.96
Department of California	102,952.43	41,089.15	6,180.00	40,992.34	131,732.05	.....	1,765.89	.....	.....	1,760.72	830.65	327,303.83
Department of Columbia	182,144.63	29,255.33	5,680.00	53,670.08	140,478.04	.....	1,683.13	.....	.....	642.00	798.83	414,340.54
Department of Arizona	568,856.13	54,839.51	24,780.00	79,819.60	206,700.40	.....	19,128.30	.....	.....	500.00	2,096.88	954,721.82
Total Division of the Pacific	851,953.09	123,163.99	36,540.00	174,488.02	479,011.09	.....	23,560.32	.....	.....	2,902.72	3,736.36	1,690,366.19
Depot at New York	38,470.39	29,983.71	.....	41,998.96	173,642.46	3.50	.....	241.00	.....	.....	.....	284,188.04
Depot at Philadelphia	8,073.81	25,562.67	4,549.69	22,274.60	22,274.60	822,128.76	.....	8,984.12	87,294.00	.....	.....	368,871.25
Depot at Washington	22,632.68	28,401.40	6,211.48	6,211.48	58,141.00	.....	.....	34,059.84	22,662.83	.....	.....	172,100.11
Depot at Jeffersonville	98,242.08	48,242.08	6,673.08	6,673.08	133,308.68	161,914.39	.....	.....	.....	.....	.....	452,966.27
Depot at St. Louis	6,984.07	16,242.18	98,560.48	9,303.41	98,560.48	13,368.10	.....	10,745.55	10,619.67	.....	.....	175,167.67
Depot at San Francisco	22,235.39	19,633.02	13,296.96	13,296.96	59,815.30	239,335.54	.....	.....	480.00	.....	.....	374,397.30
Depot at San Francisco	6,841.24	4,821.51	1,630.50	1,630.50	10,569.33	.....	.....	.....	.....	41,461.20	.....	41,461.20
Depot at San Francisco	20,665.88	5,703.41	.....	.....	3,827.92	.....	991.76	.....	.....	.....	.....	32,018.87
Depot at San Francisco	24,519.10	9,113.69	.....	.....	3,653.45	.....	415.00	.....	.....	.....	.....	37,683.14
Depot at San Francisco	471.81	1,998.59	.....	.....	12,622.10	55.00	.....	.....	.....	.....	.....	20,898.82
Depot at San Francisco	618.00	4,437.56	.....	21,175.90	10,196.44	.....	2,279.18	.....	.....	.....	.....	47,737.08
Depot at San Francisco	1,826.12	380.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,166.12
Depot at San Francisco	317.91	2,122.00	3,825.00	215.98	10,760.01	.....	.....	7,194.34	6,420.00	.....	.....	36,801.27
Depot at San Francisco	21,839.72	5,710.02	.....	.....	16,430.18	.....	458.74	.....	.....	.....	.....	148,975.97
Hot Springs, Ark.	3,096.32	2,312.92	.....	150.08	1,067.99	.....	400.00	.....	.....	.....	.....	7,917.32
Atlanta, Ga. (military post).	4,718.38	2,481.80	.....	180.00	45,331.73	.....	.....	.....	.....	.....	.....	52,711.00
Atlanta, Ga. (cemetery).	3,417.66	2,671.03	.....	309.00	350.00	.....	.....	40,496.20	17,931.84	.....	.....	65,074.60
Powder Depot, Dover, N. J.	56.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	56.60
Blagden Arsenal	779.65	15.00	.....	50.87	131.70	.....	.....	.....	.....	.....	.....	977.12

REPORT OF THE SECRETARY OF WAR.

Divisions, departments, etc.	Regular supplies.	Incidental expenses.	Cavalry and artillery horses.	Barracks and quarters.	Transportation of the Army and its supplies.	Clothing, camp and garrison equipage.	Construction and repair of hospitals.	National cemeteries.	superintendents of national cemeteries.	Shooting galleries and ranges.	Shooting galleries and ranges.	quarters for hospital stewards.	Total.
Augusta Arsenal	1,041.57	383.00			75.80								1,500.37
Banicia Arsenal	2,307.80	24.00			546.38								2,878.08
Frankford Arsenal	92.50	4.00		120.0	1,031.46								1,247.96
Kennebec Arsenal	1,181.34	45.00			80.00								1,806.34
Indianapolis Arsenal	830.92												830.92
Rock Island Arsenal	8,114.75	160.00			1,298.00			10.00					4,582.75
Watertown Arsenal	2,339.61	129.10			445.70								2,914.41
Watervliet Arsenal	2,116.14	183.95			1,010.00								3,310.09
Total depots, posts, etc.	302,937.70	211,091.73	10,084.21	114,964.39	688,101.92	1,361,302.60	4,632.68	97,285.60	60,408.34				2,850,809.17
Grand total	2,797,110.96	659,985.11	132,312.79	617,283.23	2,353,407.51	1,362,787.68	105,210.38	97,777.60	60,408.34	10,173.80	10,394.02	8,206,850.43	

Amounts estimated for and supplied from indefinite or special appropriations.

	Division of the Atlantic.	Headquarters of the Missouri.	Department of Missouri.	Department of Illinois.	Department of Texas.	Total Division of the Missouri.	Department of California.	Depot at Wash- ington.	Depot at New York.	Depot at Saint Louis.	Columbus Bar- racks.	Hot Springs, Ark.	Atlanta, Ga. (military post).	Atlanta, Ga. (cemetery).	Total.
Headstones for graves of soldiers	\$152.50														\$17,802.50
Military posts	35,013.78														35,013.78
Military post near Newport, Ky (build- ings)	797.07														797.07
Military post near Newport, Ky (site)															1,070.17
Military post near Denver, Colo.															43,475.45
Military post at Fort D. A. Russell, Wyo															3,000.00
Military post at Fort Robinson, Neb.															20,000.00
Buildings for cavalry and artillery school at Fort Riley, Kans.															55,000.00
Army and Navy Hospital at Hot Springs, Ark.															197,500.00
Academy building, Military Academy															7,500.00
Remodeling old Produce Exchange building, New York City															3,000.00
Horses and other property lost in the military service															70,003.00
Cemetery fence, Fort Winnebago, Wis.															145,271.64
Road from Vicksburg to national ceme- tery, Miss.	\$2,500														2,500.00
Road to the national cemetery near Richmond, Va.															10,000.00
Approaches to national cemetery near Danville, Va.															25,000.00
Repairing roads to national cemeteries.															10,000.00
Confederate cemeteries near Colum- bus, Ohio.															2,990.00
															1,250
															1,746.54
Total	35,863.95	2,500	200,500	86,271.92	50,000	339,271.92	2,358	202,221.42	84,153	710	1,746.54	7,500	101,747	11,280	846,951.83

Respectfully submitted.

C. G. SAWTELLE,
Deputy Quartermaster General, U. S. Army.

WASHINGTON, D. C., September 7, 1888.

3. *Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general, U. S. Army, of the money and property accounts branch for the fiscal year ending June 30, 1888.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 25, 1888.

GENERAL: I have the honor to submit a report of the operations of the money and property branch of this office during fiscal year ended 30th of June, 1888.

The duties of this branch are the administrative examination of the money accounts and returns of quartermaster's stores rendered by officers serving in the Quartermaster's Department, before their transmission to the accounting officers for final action.

It also takes action on certificates of deposits of funds pertaining to the appropriations for the Quartermaster's Department, received from sales to officers and soldiers, sales at auction, and other sources; and upon boards of survey; and inventory and inspection reports of quartermaster's stores no longer fit for issue or use.

The accompanying statements exhibit more in detail the work of the branch, and are marked—

A.—A statement showing number of accounts and returns examined, etc.

B.—A statement showing the amounts received from sales of quartermaster's stores to officers and soldiers.

C.—A statement showing in detail the amounts expended under the various heads of appropriations for the fiscal year ended June 30, 1888 (excepting appropriation for transportation of the Army), and supplement pertaining to fiscal year ending June 30, 1887.

D.—A statement showing in detail amounts expended on account of the appropriation for transportation of the Army for the fiscal year ending June 30, 1888.

E.—Abstract of payments during the year to railroad and express companies on account of appropriation for transportation of the Army, upon accounts settled by disbursing officers of the Quartermaster's Department and through the Quartermaster-General's Office and the accounting officers of the Treasury.

F.—Abstract of payments during the year for water transportation, upon accounts settled by disbursing officers of the Quartermaster's Department and through the Quartermaster-General's Office and the accounting officers of the Treasury.

G.—Abstract of payments during the year for wagon transportation, upon accounts settled by disbursing officers of the Quartermaster's Department and through the Quartermaster-General's Office and the accounting officers of the Treasury.

H.—Abstract of payments during the year for stage transportation, upon accounts settled by disbursing officers of the Quartermaster's Department and through the Quartermaster-General's Office and the accounting officers of the Treasury.

I.—A statement showing the number of civilians employed by the month, etc.

K.—A statement of amounts expended by each officer serving in the Quartermaster's Department.

Very respectfully, your obedient servant,

C. G. SAWTELLE,
Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

A.—Statement showing the number of money accounts and returns of quartermaster's stores received and disposed of during the fiscal year ended June 30, 1888.

MONEY ACCOUNTS.

On hand July 1, 1887	\$1,831
Received during the year	2,804
Total	4,635
Examined and sent to the Third Auditor	3,641
Remaining on hand June 30, 1888	994

RETURNS OF QUARTERMASTER'S STORES.

On hand July 1, 1887	1,580
Received during the year	3,309
Total	4,889
Examined and sent to the Third Auditor	3,351
Remaining on hand June 30, 1888	1,538

B.—Statement showing the amount received from sales of quartermaster's stores to officers and soldiers of the Army during the fiscal year ended June 30, 1888.

From returns made to this date there have been received from such sales. \$164,841.90

This amount has been credited to appropriations as follows:

Regular supplies	125,502.01
Incidental expenses	14.61
Cavalry and artillery horses	3,043.38
Transportation of the Army	35.41
Clothing and equipage	36,246.49
Total	164,841.90

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department for the fiscal year 1898, in the divisions, departments, independent posts, and general depots of the Army, as shown by the accounts of officers, from July 1, 1887, to July 1, 1888, so far as accounts have been received in this office, not including appropriation "Army transportation."

Division and post.	REGULAR SUPPLIES.									
	Forage.					Fuel.		Stores.		
	Hay.	Oats.	Barley.	Corn.	Bran.	Straw.	Wood.	Coal.	Heating.	Cook.
<i>Division of the Atlantic and Department of the East.</i>										
Headquarters, Governor's Island, N. Y.	\$2,935.18	\$4,268.00		\$370.10	\$278.90	\$758.35	\$1,434.61	\$17,750.86	\$1,109.70	\$983.19
Y. H.	2,990.82	4,680.59		100.25	321.71	896.71	3,130.69	13,911.67	92.63	1.80
Boston, Mass.	5,415.60	4,063.62		307.08	72.74	1,366.98	3,990.50	3,107.19		1,210.33
New Orleans, La.										
Baltimore, Md.	897.21	1,064.87		60.63	8.36	212.44	3,124.65	4,070.00	388.07	330.16
Fort Monroe, Va.	862.93	544.98		121.63		128.64	752.89	6,730.48	690.00	
Buffalo, N. Y.				256.88	100.73	429.02	4,438.41	22,954.01	300.42	409.80
Washington, D. C.										
Newport Barracks, Ky.							6.25		188.40	327.93
Fort Barranca, Fla.									71.90	137.39
Jackson Barracks, La.										8.10
Saint Francis Barracks, Fla.								5.00	18.00	128.00
Mount Vernon Barracks, Ala.							7.20			
Little Rock Barracks, Ark.										
Fort Warren, Mass.										
Fort Preble, Me.									35.70	85.96
Fort Trumbull, Conn.									70.50	29.00
Fort Adams, R. I.										
Fort McHenry, Md.									346.00	148.00
Fort Wadsworth, N. Y. H.									430.00	68.40
Fort Wayne, Mich.									223.35	293.61
Fort Porter, N. Y.									207.40	
Madison Barracks, N. Y.									393.12	
Fort Ontario, N. Y.									38.82	5.60
Fort Niagara, N. Y.									375.10	
Plattsburgh Barracks, N. Y.									16.00	
Total	16,259.42	18,308.43		1,225.57	782.44	8,792.14	16,884.00	68,529.51	4,994.60	6,759.16
<i>Division of the Missouri.</i>										
Headquarters, Chicago, Ill.	1,025.38	1,139.30		27.73		144.41	434.50	5,076.92	1,007.31	689.38

Department of the Missouri.

Headquarters and depot, Fort Leavenworth, Kans.	46,991.84	30,161.56	87,949.22	7,870.73	3,424.12	55,158.86	48,736.42	5,117.03	3,103.90
Denver, Colo.	275.59	166.12	103.05	31.85	16.20	118.13	2,118.09	410.83	230.00
Fort Riley, Kans.	477.29	801.38	64.14			244.44			200.00
Fort Crawford, Colo.		450.00					287.00		
Fort Lewis, Colo.	1,278.75	1,616.79	812.38		14.00		24.00		55.10
Camp Martin, Ind. T.	22.50	202.50							
Fort Reno, Ind. T.	44.11		10.78						
Fort Gibson, Ind. T.	10.35		22.50						
Fort Supply, Ind. T.	7.20								
Fort Sill, Ind. T.	111.91		172.10			114.00			
In the field	235.46	54.25	41.74			50.35			
Military prison, Fort Leavenworth, Kans.							105.00		
Camp Highwood, Ill.						171.50			
Total	49,514.50	33,446.60	39,187.51	7,902.58	3,454.32	55,858.08	51,283.51	5,527.85	3,588.40
<i>Department of the Platte.</i>									
Headquarters, fort, and depot, Omaha, Nebr.	46,200.24	72,848.56	32,413.19	3,743.99	4,954.47	67,054.75	75,732.79	9,682.17	305.80
Cheyenne depot, Wyo.	149.53	148.57	9.82		13.00	85.38			24.15
Ogden, Utah.	115.92	188.24				465.38			
Fort McKinney, Wyo.	1,020.00	1,897.66				37.04		17.00	
Fort Robinson, Nebr.	211.21	41.48	7.60			54.75		5.00	
Fort Washakie, Wyo.	880.11	160.08							
Fort Douglas, Utah.		73.71				230.03			
Fort Laramie, Wyo.	245.80	1,467.03				67.00			
Fort Du Chene, Utah.	1,531.98								
Total	51,353.85	76,815.33	32,430.11	3,743.99	4,954.47	67,645.23	75,732.79	9,704.17	380.93
<i>Department of Dakota.</i>									
Headquarters, Saint Paul, Minn.	87,466.39	110,231.43	26,645.85	3,227.87	3,390.63	126,376.73	78,764.71	4,223.06	3,181.44
Helen, Mont.	20,335.86	17,897.09	257.00	1,781.50	253.50	10,698.82	286.50		
Fort Custer, Mont.	1,344.79	408.19				344.53			
Fort Meade, Dak.	6.19					2.00			
Fort Totten, Dak.		2.00				8.00			
Fort Shaw, Mont.	282.26	6.20				4.00			
Fort Keoch, Mont.	219.25	30.65				5.00			
Fort Randall, Dak.									
Fort Buford, Dak.	115.64	29.67							
Fort Assiniboine, Mont.						4.00			
Fort Magnums, Mont.	514.15	85.70				143.97			7.00
Fort Snelling, Minn.	225.72	29.60				338.57			
In the field									
Total	119,510.45	123,670.62	26,902.85	5,009.37	3,644.13	137,913.62	79,051.51	4,223.06	3,186.41

6. Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.									
	Forage.					Fuel.				
	Hay.	Oats.	Barley.	Corn.	Bran.	Straw.	Wool.	Coal.	Heating.	Stores.
<i>Department of Texas.</i>										
Headquarters and depot, San Antonio, Tex.	987, 973.79	873, 964.26		811, 272.07	621, 437.43	81, 116.94	941, 144.36	85, 217.96	81, 073.50	83, 508.97
Fort Concho, Tex.	67.66						6.09			
Fort Ringgold, Tex.							2.70			
Fort Brown, Tex.							21.59			
Fort Hall, Texas.	139.40	299.60		105.10			69.89			
Total	988, 171.19	74, 283.86		41, 337.07	21, 437.43	4, 116.94	41, 210.77	5, 217.96	1, 056.50	3, 508.97
<i>Department of California.</i>										
Headquarters, San Francisco, Cal.	13, 641.44	11, 940.27	16, 892.34		1, 233.35	1, 598.96	11, 561.31	21, 203.87	1.50	
Angel Island, Cal.	321.42	119.29	163.72			28.67	331.23	12.50		11.55
Fort Bidwell, Cal.	211.65	84	29.36							
Fort Graham, Cal.	207.12	194.68								
Fort Mc Dermott, Nev.	97.07									
Headquarters, Fort Bidwell, Cal.			212.01			6.96	139.63			38.00
Camp Wright, Cal.	246.91	147.11								
Total	14, 724.61	12, 390.40	17, 331.43		1, 233.35	1, 625.59	12, 032.18	21, 216.37	1.50	49.55
<i>Department of Arizona.</i>										
Headquarters, San Angel, Cal.	21, 833.72	5, 498.50	15, 692.21	11, 410.26	1, 069.60		18, 493.79	4, 152.10	94.64	
Santa Fe, N. Mex.	13, 877.29	27, 698.30	633.00	41, 404.00	5, 833.87	7, 983.40	23, 588.92	11, 246.91	38.65	
Pecos Arts.	91, 510.45	10.20	83, 970.27	32, 238.10	10, 671.30	6, 755.20	32, 419.80	818.04	100.00	
Fort Union, N. Mex.								21.50		
Total	167, 221.40	29, 165.15	100, 304.48	85, 117.02	18, 174.77	14, 718.75	74, 507.60	10, 238.55	233.29	
<i>Department of the Columbia.</i>										
Headquarters and depot, Vancouver, B. C.	4, 678.43	6, 359.63	868.21		251.73	710.80	9, 651.79		3, 551.50	210.00
Portland, Oregon.	80, 000.22	42, 840.32	911.31	80.60	1, 678.95	1, 003.72	81, 114.20	936.54	613.80	2, 608.41
Fort Walla Walla, Wash.	639.08	1, 063.86	250.20				59.75		170.00	

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C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.												
	Lights.			Forage masters and agents.	Station- ery.	Printing material.	Advertis- ing.	Other employés.	Printing.	Lawn- mowers.	Engineers.	Firemen.	
	Lamps and lanterns.	Mineral oil.	Light.										
<i>Division of the Atlantic and Depart- ment of the East.</i>													
Headquarters, Governor's Island, N. Y. H.			\$54.94		\$100.00		\$53.26		\$4,140.00				
Boston, Mass.	\$4.40		23.31		1.44								
New Orleans, La.	77.85	\$5.50	85		42.00					\$125.00			
Baltimore, Md.	174.28		17.75		76.92					160.25			
Fort Monroe, Va.			8.00		435.62					7.40			
Buffalo, N. Y.	76.24				50.80					92.44			
Washington, D. C.			2,070.33							24.28	\$900.00		
Newport Barracks, Ky.	16.10		3.40										
Fort Barranca, Fla.			8.60										
Jackson Barracks, La.			3.63		.75								
Saint Francis Barracks, Fla.			6.83										
Mont Vernon Barracks, Va.			2.54										
Little Rock Barracks, Ark.			14.70										
Fort Warren, Mass.	14.96		10.00							11.50			
Fort Preble, Me.			8.08		26.50								
Fort Trumbull, Conn.			2.58										
Fort Adams, R. I.			20.00										
Fort Hamilton, N. Y. H.			6.77										
Fort McHenry, Md.			6.00										
Fort Schuyler, N. Y. H.			3.44										
Fort Vicksburg, N. Y. H.			3.38										
Fort Wayne, Mich.			19.63		6.10								
Fort Brady, Mich.	18.65		14.98										
Fort Myer, Va.			9.05										
Fort Porter, N. Y.			1,569.18		6.30								
Madison Barracks, N. Y.			8.33								334.00		
Fort Ontario, N. Y.			2.50										
Fort Niagara, N. Y.			3.43										
Plateburgh Barracks, N. Y.			3.62		.60								
Total	383.50	5.50	3,905.91		747.63		58.26		4,140.00	420.87		1,234.00	

QUARTERMASTER-GENERAL.

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Division of the Missouri.									
Headquarters, Chicago, Ill.									
Department of the Missouri.									
87.53	5.50	660.36		880.63	233.24	1,308.00			
Headquarters and depot, Fort Leavenworth, Kans.									
88.11		42.35		1,388.53	785.66	\$1,040.00	270.43	2,100.00	\$683.38
		1.70		20.80					
		16.37							
		8.47							
		4.15							
		8.50							
		.44							
		22.10	\$900.00						
		8.87							
		23.35							
		10.35	825.00			85.50			
		5.87	900.00						
		10.16	807.50						
		.85	900.00	17.57		1,200.00			
12.59		7.66							
		171.09	4,332.50	1,430.90	785.66	2,275.50	270.43	2,100.00	683.38
100.61									
Department of the Platte.									
Headquarters, fort, and depot, Omaha, Nebr.									
431.48		72.52	4,279.98	1,020.09	92.04	1,930.66	76.50		
		4.00	840.00			716.00			
		19.22				88.00			
		31.20							
		6.65		2.00					
		12.01							
		16.78							
		8.02							
		8.21							
		10.00							
		24.88							
		4.36							
		2.80							
431.48		228.65	5,119.98	1,022.09	92.04	2,046.66	76.50		
Department of Dakota.									
73.05	7.00	418.19		1,707.91	187.80		275.50	1,100.00	705.00
		36.72				15.00			
		23.70	900.00						
		15.00							

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.						INCIDENTAL EXPENSES.				
	Labor.	Watchmen.	Feeding and stabling.	Hay scales.	Paulins.	Rubber stamps.	Type-writers.	All expenses not otherwise enumerated.	Postage.	Printing.	Adver- tising.
<i>Division of the Atlantic and Depart- ment of the East.</i>											
Headquarters, Governor's Island, N. Y. H.....		\$315.00						\$103.30			
Boston, Mass.....								14.50			
New Orleans, La.....						\$0.50		77.72			
Baltimore, Md.....							\$11.35	120.83	\$1.20		
Fort Monroe, Va.....								64.61			
Buffalo, N. Y.....						6.15		128.22	1.00		
Washington, D. C.....								19.00			
Mount Vernon Barracks, Ala.....								19.20			
Little Rock Barracks, Ark.....								101.00			
Fort Warren, Mass.....								18.20			\$35.85
Fort Preble, Me.....								2.40			
Fort Trumbull, Conn.....								11.00	.50		
Fort Adams, R. I.....									1.00		
Fort Wayne, Mich.....								19.20			
Fort Brady, Mich.....				\$42.00				42.50		\$10.10	
Fort Myer, Va.....								22.50			
Fort Porter, N. Y.....											
Madison Barracks, N. Y.....											
Total		315.00		42.00		6.05	11.36	704.87	3.70	10.19	35.85
<i>Division of the Missouri.</i>											
Headquarters, Chicago, Ill.....						1.50	143.38	298.93			
<i>Department of the Missouri.</i>											
Headquarters and depot, Fort Leaven- worth, Kans.....	\$1,014.50					19.40		2,386.45			
Denver, Colo.....			\$1.25	25.00				1.20	2.50		
Fort Riley, Kans.....								84.50			
Fort Crawford, Colo.....									1.00		

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.						INCIDENTAL EXPENSES.				
	Labor.	Watchmen.	Feeding and stabling.	Hay scales.	Paulins.	Rubber stamps.	Type-writers.	All expenses not otherwise enumerated.	Postage.	Printing.	Advertis- ing.
<i>Department of the Missouri—Cont'd.</i>											
Fort Lewis, Colo.			\$276.90						\$14.00		
Camp Martin, Ind. T.								\$104.08			
Fort Supply, Ind. T.									2.00		
Fort Elliott, Tex.									2.00		
Military prison, Fort Leavenworth, Kans.								10,541.39			\$27.24
Camp Highwood, Mo.								65.09			
Total	\$1,014.50		278.15	\$25.00		\$10.40	\$440.08	92,183.21	22.50		227.24
<i>Department of the Platte.</i>											
Headquarters, fort, and depot, Omaha, Nebr.	3,560.16	\$1,357.83		325.20		197.65	105.75	1,327.00	8.00		
Cheyenne Depot, Wyo.	820.17	420.00		6.00				39.50			
Fort Robinson, Nebr.								2,383.08			
Total	4,380.33	1,777.83		331.20		197.65	105.75	3,750.18	8.00		
<i>Department of Dakota.</i>											
Headquarters, Saint Paul, Minn.				117.10		17.50	6.25	1,411.23	20.00		
Helena, Mont.								6.80			
Fort Bennett, Dak.									.70		
Fort Sisseton, Dak.									2.50		
Total				117.10		17.50	6.25	1,418.03	23.20		
<i>Department of Texas.</i>											
Headquarters and depot, San Antonio, Tex.						37.50		1,387.15	48.00		23.50
Fort Brown, Tex.									5.00		
Total						37.50		1,387.15	53.00		23.50

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C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.						INCIDENTAL EXPENSES.				
	Labor.	Watchmen.	Feeding and stabling.	Hay scales.	Paulina.	Rubber stamps.	Type-writers.	All expenses not otherwise enumerated.	Postage.	Printing.	Advertising.
<i>Independent Posts.—Continued.</i>											
West Point, N. Y.								\$11.75			
David's Island, N. Y. H.								134.23	\$8.50		
Hot Springs, Ark.								4.00			
Columbus Barracks, Ohio								699.23			
Total						\$4.00		948.85	18.50		\$42.15
<i>General Depots.</i>											
New York, N. Y.	\$210.00	\$330.00		\$177.00		8.00	\$108.00	1,950.89	81.50		154.73
Philadelphia, Pa.						7.00	11.10	102.37		\$14.75	108.70
Washington, D. C.							185.35	314.77			17.45
Jeffersonville, Ind.			\$277.68			6.70	260.70	5,479.95	10.00		
San Francisco, Cal.					\$5,613.00		253.75	2,576.41	7.42		
Saint Louis, Mo.			121.25		1,314.50	823.80	119.00	240.48	24.00		6.08
Total	210.00	330.00	398.93	177.00	9,927.50	359.75	917.99	10,049.30	134.92	14.75	337.85

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.											
	Extra duty.				Civilian employés.							
	School teachers.	Mechanics.	Clerks.	Messen- gers.	Laborers.	Clerks.	Laborers.	Messen- gers.	Watch- men.	Janitors.	Farriers.	Draughts- men.
<i>Division of the Atlantic and Depart- ment of the East.</i>												
Headquarters, Governor's Island, N. Y. H.	\$174.00	\$143.00	\$2.10			\$15,099.78	\$1,065.00	\$1,820.00	\$180.00	\$705.00		\$860.65
Boston, Mass.						3,000.00		600.00	540.00			
New Orleans, La.						4,399.92		495.00				
Baltimore, Md.						2,100.00		600.00				
Fort Monroe, Va.	183.00	561.50				533.00						
Buffalo, N. Y.						3,060.00		600.00				
Washington, D. C.	183.00	309.60	117.95			436.05						
Newport Barracks, Ky.		297.50	121.13			116.20	399.80					
Fort Barranca, Fla.	57.00	406.50				158.55						
Jackson Barracks, La.		203.00				310.90	28.00					
Salat Francis Barracks, Fla.		129.25	95.20			288.75						
Mount Vernon Barracks, Ala.	163.00	382.00										
Little Rock Barracks, Ark.		281.50										
Fort Warren, Mass.	135.00	158.50	113.40			255.45						
Fort Preble, Me.	163.00	284.00										
Fort Trumbull, Conn.		282.00				317.50						
Fort Adams, R. I.	177.00	458.75	119.70			259.85						
Fort Hamilton, N. Y. H.		332.50	199.50			339.35						
Fort Wood, N. Y. H.		155.00	92.75									
Fort Mollen, Md.	135.00					588.80						
Fort Schuyler, N. Y. H.	175.00	302.00				122.50						
Fort Wadsworth, N. Y. H.		226.50				165.00						
Fort Wayne, Mich.	127.00	267.00				473.95						
Fort Brady, Mich.	164.00	220.60				173.75						
Fort Mackinac, Mich.	183.00	301.50	75.25			30.10						
Fort Myer, Va.	73.00					477.75						
Fort Porter, N. Y.		323.00				221.40						
Madison Barracks, N. Y.	137.00	321.00				720.00						
Fort Ontario, N. Y.		32.50				361.20						
Fort Niagara, N. Y.		150.00				443.60						
Fort Niagara Barracks, N. Y.		164.90	90.35			204.00						
Total	2,241	6,762.10	1,027.33		7,703.90	31,388.28	1,093.00	4,203.00	720.00	795.00		666.65

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.									
	Extra duty.				Civilian employes.					
	School-teachers.	Mechanics.	Clerks.	Messen-gers.	Laborers.	Clerks.	Laborers.	Messen-gers.	Watch-men.	Janitors.
<i>Division of the Missouri.</i>										
Headquarters, Chicago, Ill.....						\$19,021.59	\$543.40	\$2,040.00	\$540.00	\$1,525.00
<i>Department of the Missouri.</i>										
Headquarters and depot, Fort Leavenworth, Kans.....										
Denver, Colo.....		\$1,970.60	\$157.20	\$117.60	\$215.55	15,398.78	720.00	1,050.00	1,820.00	\$840.00
Fort Riley, Kans.....		36.50	100.10		198.45	1,703.32	100.00	240.00		
Fort Hays, Kans.....	\$150.00	718.75			263.55	450.90				
Fort Crawford, Colo.....	183.00	191.50			293.55					
Fort Lewis, Colo.....	171.00	39.00			295.70					
Fort Reno, Ind. T.....	108.00	494.50			400.05					
Fort Gibson, Ind. T.....		884.25			340.80					
Fort Lyon, Colo.....		262.50	108.15		108.83					
Fort Supply, Ind. T.....		370.50			290.15					
Fort Sill, Ind. T.....		470.00			238.00					
Fort Elliott, Tex.....		133.00	20.95		728.60					
Indefinite field.....		278.00			345.00					
Military prison, Fort Leavenworth, Kans.....		27.00			14.00					
Camp Highwood, Mo.....		182.50	33.00		128.10	1,801.00		425.33		
Total.....	1,202.50	6,067.00	431.40	117.60	3,687.10	19,362.09	880.00	1,743.33	1,820.00	810.00
<i>Department of the Platte.</i>										
Headquarters, fort, and depot, Omaha, Nebr.....	9.00	1,232.45	131.25		578.03	17,114.05	1,864.92	1,620.00	1,209.44	605.00
Cheyenne Depot, Wyo.....					481.05	4,400.04		600.00	420.00	
Fort McKinney, Wyo.....	316.00	231.50	133.24		633.31					240.00
Fort Robinson, Nebr.....	343.50	536.50	117.80		794.40					
Fort Washakie, Wyo.....	148.50	154.10	21.35		677.65					
Fort Niobrara, Nebr.....	272.50	1,277.00	104.35		364.75	1.00				
Fort Douglas, Utah.....	161.50	851.25	40.60		490.15					
Fort Laramie, Wyo.....	140.00	372.50	3.85		1,237.10					
Fort Du Chene, Utah.....	177.00	994.10								

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REPORT OF THE SECRETARY OF WAR.

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.									
	Extra duty.				Civilian employees.					
	School-teachers.	Mechanics.	Clerks.	Messengers.	Laborers.	Clerks.	Laborers.	Messengers.	Watchmen.	Janitors.
<i>Department of California.</i>										
Headquarters, San Francisco, Cal.	\$151.00	\$980.50	\$136.85		\$75.00	\$10,593.88	\$288.00	\$1,307.50	\$1,441.67	
Presidio of San Francisco, Cal.	91.00	379.50			1,509.55	1,050.03	10.00			
Fort Mason, Cal.	183.00	59.00			722.20					
Alcatraz Island, Cal.		806.50	97.65		354.95					
Angel Island, Cal.	91.00	470.00			369.30					
Fort Bidwell, Cal.	167.50	279.50	10.85		153.30					
Fort Gaston, Cal.	168.00	329.50	10.50		111.65					
Fort McDermitt, Nev.	124.00	324.85			236.20					
Benicia Barracks, Cal.		26.00			41.30					
Camp Wright, Cal.										
Total	975.50	3,655.35	255.85		4,494.00	11,643.91	898.00	1,307.50	1,441.67	1,000.00
<i>Department of Arizona.</i>										
Headquarters, Los Angeles, Cal.										
Santa Fe, N. Mex.		16.00						1,445.00	720.00	
Tucson, Ariz.					247.80	4,816.00	702.70	470.66	810.00	\$240.00
Whipple Barracks, Ariz.	44.00	570.50			180.60	3,069.00		330.00		
Fort Huachuca, Ariz.	152.50	407.50	106.75		139.10					
San Diego Barracks, Cal.	168.00	194.00								
Fort Wingate, N. Mex.		720.88	74.50		303.85		130.63			
Fort Selden, N. Mex.	219.50	602.50	119.00		165.00					
Fort Bayard, N. Mex.	182.00	287.25	58.10		340.65					
Fort Stanton, N. Mex.	180.50	431.50	298.85		247.60					
Fort Union, N. Mex.		164.00	127.60	\$8.75	471.30					
Fort Thomas, Ariz.	51.50	152.50	15.40		405.30					
San Carlos Agency, Ariz.	104.75	236.50	19.95		265.65					
Fort Apache, Ariz.		236.50			406.00					
Fort Lowell, Ariz.	11.00	233.00			361.35					
Fort McDowell, Ariz.		208.50			170.10					
Fort Grant, Ariz.					405.83					
Fort Bowie, Ariz.	103.50	54.00	110.95		462.55					
Fort Verde, Ariz.			96.40		9.45					

4. *Applicant of charge* may be denied the amount expended for the various appropriate items for the "unit for medical" or "hospital unit," etc.

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C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.						BARRACKS AND QUARTERS.				
	Disinfectants.	Shoeing.	Ammunition.	Other employees.	Office furniture.	Deserters.	All ex. houses not otherwise enumerated.	Purchase of tools.	Rent of—		
									For officers.	For enlisted men.	Offices.
<i>Department of Dakota—Continued.</i>											Stables and grounds.
Fort Shaw, Mont.			\$4.00			\$30.00					
Fort Mission, Mont.						2.00					
Fort Ketch, Mont.			114.00	\$13.50		20.00				\$0.75	
Fort Sully, Dak.						1.00					
Camp Poplar River, Mont.		\$2.00	8.00								
Fort Randall, Dak.			1.50	23.00							
Fort Pembina, Dak.						30.00					
Fort A. Lincoln, Dak.						10.00					
Fort Buford, Dak.											
Fort Yates, Dak.		19.95	2.00	50.00							
Fort Sisseton, Dak.			4.00								
Fort Assiniboine, Mont.			50.00	750.00		30.00					
Fort Maginnis, Mont.			10.00								\$10.00
Fort Snelling, Minn.				112.70		120.00	\$104.50				
Camp Sheridan, Dak.		207.00		3.10			11.00				
In the field		16.00									\$45.00
Total	\$7.60	418.34	407.00	1,012.00	\$350.12	810.00	7,444.34	\$10.50	3.75	\$945.00	175.00
<i>Department of Texas.</i>											
Headquarters and depot, San Antonio, Tex.	103.03	91.20	58.25	1,600.42	505.57	810.00	950.49	60.40	\$1,075.00	710.00	700.00
Camp Eagle Pass, Tex.											4,810.87
Fort Bliss, Tex.		24.75									
Fort Ringgold, Tex.		156.65									105.00
In the field, Texas.											30.60
Total	103.05	272.60	58.25	1,600.42	505.57	810.00	950.49	60.40	1,075.00	740.00	805.00
<i>Department of California.</i>											
Headquarters, San Francisco, Cal.			32.50	1,952.29	131.48	180.00	110.30			7,408.00	900.00

[illegible]

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	BARRACKS AND QUARTERS.							CAVALRY AND ARTILLERY HORSES.				
	Advertis- ing.	Printing.	Construc- tion and repairs.	Carpen- ters.	Plaster- ers.	Masons.	Painters.	Laborers.	Other employes.	All ex- penses not otherwise enumer- ated.	Purchase of Advertis- ing.	Printing
<i>Division of the Atlantic and Depart- ment of the East.</i>												
Headquarters, Governor's Island, N. Y. H.	\$29.20		\$0,812.72	\$1,380.00		\$50.00	\$600.00		\$633.81			
Boston, Mass.			130.00							\$2.00		
New Orleans, La.	30.10		3,489.22	2.00						8.00	\$507.00	\$17.48
Baltimore, Md.										31.05		
Fort Monroe, Va.	20.66		2,948.29									
Buffalo, N. Y.			94.90									
Washington, D. C.			2,087.15									
Newport Barracks, Ky.			145.87									
Fort Barrancas, Fla.			5,006.00							121.68		
Jackson Barracks, La.			2,289.94									
Saint Francis Barracks, Fla.			882.14							20.00		
Mount Vernon Barracks, Ala.			787.49									
Little Rock Barracks, Ark.			5,137.08									
Fort Warren, Mass.			1,348.89									
Fort Preble, Me.			594.42									
Fort Trumbull, Conn.			1,847.67									
Fort Adams, R. I.			2,064.00									
Fort Hamilton, N. Y. H.			4,498.00									
Fort Wood, N. Y. H.			2,274.00									
Fort McHenry, N. Y. H.	41.55		7,019.33							18.26		
Fort Schuyler, N. Y. H.			1,295.00									
Fort Wadsworth, N. Y. H.			4,427.94									
Fort Wayne, Mich.			1,711.00							25.00		
Fort Brady, Mich.			75.32									
Fort Mackinac, Mich.			601.98									
Fort Myer, Va.			53.38		\$6.00		141.00					
Fort Porter, N. Y.			49.50									
Madison Barracks, N. Y.			7,648.85			147.00			33.00			
Fort Ontario, N. Y.			2,238.00									
Fort Niagara, N. Y.			18,689.00									
Pittsburgh Barracks, N. Y.			291.00									
Total.....	121.51		\$0,584.07	1,382.00	6.00	207.00	741.00		966.81	225.99	507.00	17.48

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	BARRACKS AND QUARTERS.							CAVALRY AND ARTILLERY HORSES.					
	Advertis- ing.	Printing.	Construc- tion and repairs.	Carpen- ters.	Plaster- ers.	Masons.	Painters.	Laborers.	Other employes.	All ex- penses not otherwise enumer- ated.	Purchase of.	Advertis- ing.	Printing.
<i>Division of the Missouri.</i>													
Headquarters, Chicago, Ill.			\$4,038.78				\$237.75			\$3.00			
<i>Department of the Missouri.</i>													
Headquarters and depot, Fort Leavenworth, Kans.			19,607.01	\$1,490.00			350.00			148.63	\$24,187.50		
Denver, Colo.			1,540.37										
Fort Riley, Kans.			2,997.33	76.50	\$227.00		20.00						
Fort Crawford, Colo.			230.00										
Fort Lewis, Colo.			4,830.11							15.00			
Fort Reno, Ind. T.			1,759.72	223.65						8.60			
Fort Gibson, Ind. T.			1,002.50			\$62.60							
Fort Lyon, Colo.			1.00										
Fort Sill, Ind. T.			3,490.11										
In the field.	\$12.60		5,400.00										
Camp Highwood, Mo.			1,113.49	27.50									
Total.	12.60		42,069.64	1,817.65	227.00	62.60	370.00			167.23	24,187.50		
<i>Department of the Platte.</i>													
Headquarters, fort, and depot, Omaha, Nebr.			10,934.91							97.76			
Cheyenne Depot, Wyo.			208.00						\$90.00				
Fort McKinney, Wyo.			2,117.87										
Fort Robinson, Nebr.			1,779.22	60.00									
Fort Washakie, Wyo.	23.60		3,185.09										
Fort Niobrara, Nebr.	31.75	\$5.00	3,298.50										
Fort Douglas, Utah.			1,067.60							66.00			
Fort Laramie, Wyo.			73.71										
Fort Du Cheneau, Utah.			8,152.37						1,500.00	20.65			
Fort D. A. Russell, Wyo.			209.45										
Fort Sidney, Nebr.			715.41										
Total.	55.25	5.00	31,402.43	60.00					1,690.00	190.41			

Department of Dakota.

[illegible]

Department of Texas.

[illegible]

Department of California.

Presidio of San Francisco, Cal.	35.50	9,732.00	473.37	2.50	192.49	12.00	40.00	12.50	
Fort Mason, Cal.		3,291.83							
Poctras Island, Cal.		2,372.65						15.25	
Angel Island, Cal.		3,756.99	600.00						
Angel Island, Cal.		2,247.29							
Fort Bidwell, Cal.		238.27	459.05		181.00	280.00		474.08	
Fort Gaston, Cal.		1,784.82							
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C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	BARRACKS AND QUARTERS.							CAVALRY AND ARTILLERY HORSES.					
	Advertis- ing.	Print- ing.	Construc- tion and repairs.	Carpen- ters.	Plaster- ers.	Masons.	Painters.	Laborers.	Other employ- ees.	All ex- penses not otherwise enumer- ated.	Purchase of.	Advertis- ing.	Print- ing.
Department of Arizona.													
Headquarters, Los Angeles, Cal.			\$706.50	\$348.00						\$25.30			
Santa Fe, N. Mex.			5,896.48	123.50		\$6.00	\$24.00						
Tucson, Ariz.			47.05										
Whipple Barracks, Ariz.			613.00										
Fort Huachuca, Ariz.			4,211.84	562.00		242.40							
San Diego Barracks, Cal.			420.97										
Fort Wingate, N. Mex.			2,107.44	328.75		809.34	8.00	\$1,006.61		26.75			
Fort Selden, N. Mex.			250.00										
Fort Bayard, N. Mex.			4,640.24	190.00		193.00				420.00			
Fort Stanton, N. Mex.			10,476.54	225.00				62.50					
San Carlos Agency, Ariz.			300.00										
Fort Apache, Ariz.			1,879.36	141.75									
Fort Lowell, Ariz.			772.75	356.50	\$36.00								
Fort McDowell, Ariz.			534.03	602.67		112.50							
Fort Grant, Ariz.			1,176.15	853.50									
Fort Bowie, Ariz.			116.89			326.33							
Total			34,200.34	3,729.67	36.00	1,689.57	27.00	1,060.11		472.05			
Department of the Columbia.													
Headquarters and depot, Vancouver													
Barracks, Wash.													
Portland, Oregon			9,021.73	96.00							\$417.00		
Fort Walla Walla, Wash.			32.73								910.00		
Boise Barracks, Idaho			18,776.14										
Fort Conby, Wash.			3,973.69										
Fort Sheridan, Idaho										18.00			
Fort Townsend, Wash.			7,636.77		90.00								
Fort Klamath, Oregon			940.73		33.00		36.00						
Fort Spokane, Wash.			94.50										
Total			44,564.93	96.00	123.00		36.00			18.00	1,327.00		

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	CAVALRY AND ARTILLERY HORSES.		HOSPITALS.							CLOTHING.			
	Feeding and stabling.	All expenses not otherwise enumerated.	Extra duty.		Printing.	Advertis- ing.	Plaster- ers.	Carpen- ters.	Masons.	Painters.	Construc- tion and repairs.	All expenses not otherwise enumer- ated.	Purchase of material.
			Me- chanics.	Laborers.									
<i>Division of the Atlantic and Depart- ment of the East.</i>													
Headquarters, Governor's Island, N. Y. II.											\$397.00	\$807.90	
New Orleans, La.											558.54		
Washington, D. C.											298.84		
Newport Barracks, Ky.											55.00		
Fort Barranca, Fla.											427.38		
Jackson Barracks, La.											515.60		
Mount Vernon Barracks, Ala.											617.13		
Little Rock Barracks, Ark.											23.00		
Fort Warren, Mass.											200.00		
Fort Hamilton, N. Y. II.											35.00		
Fort McHenry, Md.											397.00		
Fort Wadsworth, N. Y. H.											55.00		
Fort Wayne, Mich.											143.12		
Fort Brady, Mich.											41.85		
Fort Mackinac, Mich.											430.80		
Fort Meyer, Va.											238.73		
Madison Barracks, N. Y.									\$57.00		88.14		
Fort Ontario, N. Y.											26.91	32.50	
Plattsburgh Barracks, N. Y.											160.26		
Total									57.00		4,791.34	840.40	
<i>Division of the Missouri.</i>													
Headquarters, Chicago, Ill.													
<i>Department of the Missouri.</i>													
Headquarters and depot, Fort Leaven- worth, Kans.					\$29.00	\$81.45					1,780.36		
Fort Riley, Kans.												6.75	
Fort Hays, Kans.								\$15.00					
Fort Crawford, Colo.			\$21.50								119.50		
Fort Lewis, Colo.											183.38	22.75	

Fort Reno, Ind. T.	34.00					2.00			14.45	9.50	
Fort Gibson, Ind. T.	19.50					22.50			64.66		
Fort Lyon, Colo.	23.00					96.00			50.00		
Fort Supply, Ind. T.	29.50										
Fort Elliott, Tex.											
Military prison, Fort Leavenworth, Kans.									496.74		\$101,077.91
Total	127.50		29.00	81.45		135.50		5.50	2,709.19	39.00	101,077.91
<i>Department of the Platte.</i>											
Headquarters, fort, and depot, Omaha, Neb.											
Olney, Depot, Wyo.	47.00	\$49.70		14.46					757.46	.34	
Fort McKinney, Wyo.	105.00								1,073.00		
Fort Robinson, Neb.									104.91		
Fort Washakie, Wyo.									2,510.92		
Fort Niobrara, Neb.									644.50		
Fort Laramie, Wyo.	19.00								546.00		
Fort Du Chene, Utah	45.50	9.10				60.00			10,245.00		
Fort Bridger, Wyo.									124.28		
Fort Sidney, Neb.											
Total	216.50	58.80		14.46		60.00			16,072.05	.34	
<i>Department of Dakota.</i>											
Headquarters, Saint Paul, Minn.											
Fort Custer, Mont.		\$23.94		51.27					6,413.50		
Fort Meade, Dak.						\$9.55	21.67		105.00		
Fort Totten, Dak.						40.00	47.25		1,434.82	140.50	
Fort Mission, Mont.	7.50										
Fort Keogh, Mont.	47.00	131.60		20.50					1,692.20	345.33	
Fort Bennett, Dak.									63.00		
Camp Poplar River, Mont.	8.00								82.50		
Fort Randall, Dak.							289.00		116.00		
Fort Pembina, Dak.									39.50		
Fort A. Lincoln, Dak.									120.00		
Fort Buford, Dak.							160.00		83.00		
Fort Sisseton, Dak.						42.00					
Fort Assiniboine, Mont.	90.36					20.00	91.00		17.00		
Fort Maguire, Minn.							79.00		25.00	10.00	
Fort Snelling, Minn.							45.00		46.00		
Camp Sheridan, Dak.									90.29	10.00	
Total	152.50	131.60		71.77		138.55	740.92		410.00	10,019.81	614.83
<i>Department of Texas.</i>											
Headquarters and depot, San Antonio, Tex.	46.80			19.70		38.50	18.00	127.50	150.50	2,629.14	28.00

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

Division and post.	CAVALRY AND ARTIL- LERY HORSES.		HOSPITALS.						CLOTHING.				
	Feeding and stabling.	All ex- penses not other wise enumer- ated.	Extra duty.		Printing.	Advertis- ing.	Plaster- ing.	Carpen- ters.	Masons.	Painters.	Construc- tion and repairs.	All expenses not other wise enumer- ated.	Purchase of material.
			Me- chanics.	Laborers.									
Department of Texas—Continued.													
Fort Davis, Tex.													
Fort Hancock, Tex.													
Fort Concho, Tex.													
Fort Ringgold, Tex.			\$14.00										
Fort McIntosh, Tex.													
Fort Clark, Tex.			88.00									\$30.50	
Camp Del Rio, Tex.			25.00										
Fort Brown, Tex.													
Total		\$46.80	127.00			\$10.70	\$38.50	388.43	402.90	237.98	3,547.94	63.29	
Department of California.													
Fort Mason, Cal.													
Alcatraz Island, Cal.													
Angel Island, Cal.					31.10						281.00	61.68	
Fort Bidwell, Cal.								7.00					
Fort Gaston, Cal.											92.45		
Fort McDermitt, Nev.											183.17		
Camp Wright, Cal.											28.00		
Total					31.10			7.00			110.00		
Department of Arizona.													
Headquarters, Los Angeles, Cal.													
Whipple Barracks, Ariz.					136.06								
Fort Huachuca, Ariz.													
Fort Selden, N. Mex.										38.50		8.05	
Fort Bayard, N. Mex.													
Fort Stanton, N. Mex.			31.00										
Fort Union, N. Mex.			22.00										
Fort Thomas, Ariz.													
Fort Apache, Ariz.									9.00		15.00		
Fort McDowell, Ariz.								24.00			178.80		

QUARTERMASTER-GENERAL.

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Department of the Missouri.

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Department of the Platte.

<i>Department of the Platte.</i>					
<i>Headquarters, fort, and depot, Omaha, Nebr.</i>					
Fort McKimney, Wyo					617.25
Fort Robinson, Nebr.				25.00	12.00
Fort Washakie, Wyo.					5.13
Fort Niobrara, Nebr.					5.35
Fort Douglas, Utah.					4.40
Fort Laramie, Wyo.			10.00		4.40
Fort Du Chesse, Utah.					1.75
Fort Bridger, Wyo.					6.67
Fort D. A. Russell, Wyo.					2.50
Camp Fort Butte, Wyo.					4.82
Fort Sidney, Nebr.					4.00
					510.38

Department of Dakota.

<i>Department of Dakota.</i>					
Headquarters, Saint Paul, Minn	4.00	48.43	208.89
Fort Custer, Mont.	120.00	3.86
Fort Meade, Dak.	6.45
Fort Totten, Dak.	242.25
Fort Shaw, Mont.	74.70	51.82
Fort Keogh, Mont.	138.65
Fort Sully, Dak.	6.70
Fort Bennett, Dak.	1.80
Fort Pembina, Dak.	75.00
Fort A. Lincoln, Dak.	9.34
Fort Buford, Dak.	8.77
Fort Yates, Dak.	6.07
Fort Assiniboine, Mont.	87.50	1.89
Fort Snelling, Minn	210.00	100.85
					210.19
					3.86
					6.45
				
					51.82
					138.65
					6.70
					1.80
				
					9.34
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					138.65
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					1.80
				
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					51.82
					138.65
					6.70
					1.80
				
					9.34

C.—Statement showing in detail the amounts expended from the various appropriations made for the Quartermaster's Department, etc.—Continued.

RECAPITULATION.

Divisions, departments, general depots, and independent posts.	Regular supplies.	Incidental expenses.	Barracks and quarters.	Cavalry and artillery horses.	Hospitals.	Clothing.	Shooting galleries and ranges.	Hospital stewards' quarters.	Total.
Division of the Atlantic and Department of the East.....	\$149,571.71	\$67,191.27	\$90,608.48	\$324.48	\$5,091.74	\$368.45	\$2,702.77	\$1,443.82	\$227,162.72
Department of the Missouri.....	13,714.19	27,131.68	20,168.39			0.63			61,029.72
Department of the Missouri.....	287,366.71	57,681.64	46,701.87	24,187.50	3,127.14	107,602.00	284.53	101.24	521,630.53
Department of the Platte.....	345,710.13	10,430.10	41,540.44		16,425.15	35.00	608.56	760.11	463,530.84
Department of Dakota.....	532,437.48	63,094.10	51,123.09		12,445.08	863.07	609.49	1,125.61	657,838.14
Department of Texas.....	201,158.80	41,299.10	42,631.94	5,227.10	4,815.71	21.00	2,073.70	1,746.41	412,518.28
Department of California.....	166,824.16	28,084.58	24,647.62	27,368.55	1,233.20		1,739.82	606.00	352,115.68
Department of Arizona.....	624,185.51	46,688.40	54,804.21		2,410.12	46	404.70	1,340.14	629,578.23
Department of the Columbia.....	166,232.83	29,314.49	46,514.00	1,328.00	2,410.12	587.61	25.56	783.00	245,210.10
Independent posts.....	75,784.98	24,894.03	26,726.51		1,612.07	37.00			141,063.41
General depots.....	281,302.56	175,031.38	101,503.21	14,394.60	961.60	1,000,577.80	136.00	292.13	1,660,143.18
Total.....	2,704,307.17	625,746.72	572,203.67	73,030.32	62,783.81	1,179,099.33	8,723.23	7,280.51	6,224,168.95

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department for the fiscal year 1887, in the divisions, departments, independent posts, and general depots of the Army, as shown by the accounts of officers received since preparation of annual report for fiscal year ended June 30, 1887, not including appropriation "Army transportation."

Division and post.	REGULAR SUPPLIES.													
	Forage.						Forage-master.	Fuel.		Stoves and ranges.		Lamps and lanterns.		Stationery.
	Hay.	Oats.	Barley.	Corn.	Bran.	Straw.		Wood.	Coal.	Heating.	Cook.	Lights.	Lamps.	
<i>Division of the Atlantic and Department of the East.</i>														
Headquarters Department of the East, Governor's Island.....														
	\$87.71	\$147.97				\$53.15								
	586.96	602.49		\$15.30	\$5.70	98.45			\$579.51		\$1,173.42	\$369.41	\$8.75	\$19.40
													.22	
													2.02	
Total	674.67	750.46		15.30	5.70	152.60			579.51		1,173.42	369.41	10.99	19.40
<i>Division and Department of the Missouri.</i>														
Chicago, Ill.....														
	301.20	2,747.51											6.70	
				2,304.79	634.00				6.50		54.35	169.00		\$48.00
				52.16										768.58
									\$75.00					
									75.00					
	43.46			43.50					43.00				1.70	4.71
Total	344.66	2,747.51		2,400.45	634.00				49.50		54.35	169.00	8.40	48.00
<i>Department of the Platte.</i>														
	5,180.88	4,543.56		4,261.26	8.10	99.72			1,152.08	\$1,795.05				
	10.50													
	7.78	10.80							28.25					
Total	5,199.16	4,554.36		4,261.26	8.10	99.72			1,179.33	1,795.05				

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.													
	Forage.						Forage- master.	Fuel.		Stoves and ranges.		Lamps and lan- terna.		Station- ery.
	Hay.	Oats.	Barley.	Corn.	Bran.	Straw.		Wood.	Coal.	Heating.	Cook.	Lights.	Lamps.	
<i>Department of Dakota.</i>														
Saint Paul, Minn	\$4,812.23	\$5,042.64		\$18.75	\$48.48	\$78.92		\$29,369.98	\$77.04	\$87.75	\$94.46	\$15.66		
Helena, Mont.	4,252.45	11,181.05		1,390.87	211.00									
Fort Custer, Mont.	129.09	2.00												
Fort Shaw, Mont.	9.52	1.50										3.75		
Fort Buford, Dak.	135.18							10.00						
Fort Maginnis, Mont.	3.92	2.40												
Total	9,342.39	16,229.59		1,349.62	259.48	79.92		29,379.98	77.04	87.75	94.46	19.41		
<i>Department of Texas.</i>														
Fort Davis, Tex.								\$75.00						\$592.83
San Antonio, Tex.	3,988.80							60.00			181.30			
Fort Concho, Tex.														
Fort Bliss, Tex.								60.00				.95		
Fort Ringgold, Tex.								75.00				.45		
Fort Clark, Tex.														
Camp Del Rio, Tex.														
Total	3,988.80							270.00			181.30	1.40		592.83
<i>Division of the Pacific and Depart- ment of California.</i>														
Presidio, San Francisco, Cal.	1,332.72	305.47	\$1,631.34			13.71		1,448.54	1,275.81			12.00		
Fort Bidwell, Cal.	26.83		23.77											
Fort Gaston, Cal.	20.16	23.52												
Total	1,379.71	328.99	1,655.11			13.71		1,448.54	1,275.81			12.00		
<i>Department of Arizona.</i>														
Los Angeles, Cal.	912.40	39.45	598.62	1,089.23	558.63			1,637.93				40.00		4,411.30
Santa Fe, N. Mex.	1,968.36	382.75	8.40	1,095.55	1,970.96			1,117	913.14		22.68			

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C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	REGULAR SUPPLIES.							INCIDENTAL EXPENSES.						
	Printing.	Advertis- ing.	Scales.	Lawn- mowers.	Type- writers.	Scale- house.	Coal and wood house.	Hay and scales and rack.	Expenses not otherwise enumer- ated.	Clerks.	Inter- ment of officers.	Printing.	Guides.	
<i>Division of the Atlantic and Depart- ment of the East.</i>														
Headquarters Department of the East Governor's Island.....		\$04.35							\$188.87					
New Orleans, La.....											\$75.00			
Mount Vernon Barracks, Ala.....														
Total.....		94.35							188.87		75.00			
<i>Division and Department of the Mis- souri.</i>														
Fort Leavenworth, Kans.....		180.20		\$42.10					346.19				\$100.00	
Fort Supply, Ind. T.....														
United States Military Prison, Fort Leavenworth.....									231.60					
Total.....		180.20		42.10					577.79				100.00	
<i>Department of the Platte.</i>														
Omaha, Nebr.....		200.50												
Fort McKinney, Wyo.....									5.25					
Fort Washakie, Wyo.....									690.00		65.00			
Fort D. A. Russell, Wyo.....														
Total.....		200.50							695.25		65.00			
<i>Department of Dakota.</i>														
Saint Paul, Minn.....	\$164.39	114.99							250.87					
Helena, Mont.....										\$150.00				
Fort Shaw, Mont.....										83.33			120.00	
Fort Keogh, Mont.....										100.00				
Fort Maginnis, Mont.....										60.00				
Fort Pembina, Dak.....													45.00	
Total.....	164.39	114.99							250.87	393.33			165.00	

<i>Department of Texas.</i>											
Fort Davis, Tex.	141.30	84.50							1,090.17	100.00	
San Antonio, Tex.										100.00	
Fort Clark, Tex.									1,090.17	200.00	
Total.	141.30	84.50									
<i>Division of the Pacific and Department of California.</i>											
Presidio, San Francisco, Cal.	210.50	35.78							10.50		
<i>Department of Arizona.</i>											
Los Angeles, Cal.		392.02							142.25		35.00
Santa Fe, N. Mex.									242.49		12.00
Fort Huachuca, Ariz.											150.00
Tucson, Ariz.									808.80		
Fort Bayard, N. Mex.									2.50		
Fort McDowell, Ariz.									80.00		
Fort Verde, Ariz.											
Total.	392.02								2,900.44		197.00
<i>Department of the Columbia.</i>											
Portland, Oregon.									30.55		
<i>Independent posts.</i>											
Benicia Arsenal, Cal.		5.80									
Atlanta, Ga.		27.91									
Jefferson Barracks, Mo.									45.90		
Total.		33.51							45.90		
<i>General depots.</i>											
Jeffersonville, Ind.	301.25	268.97							1,341.87		\$16.65
San Francisco, Cal.		24.05							52.80		
Washington, D. C.									8.80		
New York, N. Y.		40.50							2,730.34		
Saint Louis, Mo.		32.29							48.75		
Total.	301.25	365.81							4,182.56		16.65

U, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.										
	Desert- ers.	Messen- gers.	Horse and mule nails.	Horse and mule shoes.	Affida- vits.	Shoeing.	Recovery of horses and mules.	Hire of tele- phones.	Office furniture.	Extra duty. Clerks. Mechan- ics.	School- teachers. Laborers.
<i>Division of the Atlantic and Depart- ment of the East.</i>											
Headquarters Department of the East Governor's Island.....	\$30.00								\$400.60		
New Orleans, La.....									60.00		
Newport Barracks, Ky.....	30.00										
Saint Francis Barracks, Fla.....						\$10.00				\$10.50	
Jackson Barracks, La.....						8.60				13.50	\$18.20
Mount Vernon Barracks, Ala.....						10.80				45.00	45.70
Little Rock Barracks, Ark.....	30.00									14.50	
Fort Preble, Me.....										25.50	8.75
Fort Adams, R. I.....										52.00	
Fort Hamilton, N. Y.....										10.50	11.60
Baltimore, Md.....	80.00									18.20	29.20
Fort Wayne, Mich.....						14.75			38.00		
Boston, Mass.....									14.75		
Total.....	120.00					40.05			603.35	178.00	141.25
<i>Division and Department of the Mis- sour.</i>											
Fort Leavenworth, Kans.....			\$21.50	\$3.30	\$0.75				60.95		
Denver, Colo.....	30.00										
Fort Reno, Ind. T.....						19.60				99.50	56.05
Fort Supply, Ind. T.....					12.25					64.50	18.20
Fort Sill, Ind. T.....										92.50	77.85
Total.....	30.00		21.50	9.30	13.00	19.60			60.95	258.50	152.10
<i>Department of the Platte.</i>											
Omaha, Nebr.....	60.00					91.30		\$4.50			
Ogden, Utah.....											
Total.....	60.00					91.30		4.50			

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Department of Dakota.

Department of Dakota.									
Saint Paul, Minn.....					16.40	23.85			
Holena, Mont.....	30.00								18.20
Fort Custer, Mont.....		7.00			27.20		1.50		17.86
Fort Shaw, Mont.....	27.50		9.00				40.50		17.50
Fort Missoula, Mont.....						10.00		9.10	15.00
Fort Keogh, Mont.....			28.00				90.00		15.00
Fort Buford, Dak.....									59.85
Fort Yates, Dak.....			13.50						8.56
Fort Maginnis, Mont.....			33.00		1.75		25.00		18.20
Fort Snelling, Minn.....	30.00								
Fort Meade, Dak.....	30.00				\$50.00	25.00			
Total.....	187.50		91.50		45.35	50.00	165.50	9.10	62.50
						58.85			181.30

Department of Texas.

<i>Department of Texas.</i>					
Fort Davis, Tex.....					52.00
San Antonio, Tex.....				168.86	
Camp at Eagle Pass, Tex.....	37.00	6.00			18.20
Fort Concho, Tex.....					30.00
Fort Bliss, Tex.....			8.60	6.00	5.00
Camp Pecos Colorado, Tex.....					36.40
Fort Ringgold, Tex.....					4.50
Fort Clark, Tex.....					19.25
Camp Del Rio, Tex.....					45.00
Fort Brown, Tex.....				4.50	15.00
Total.....	37.00	6.00	8.60	10.50	15.00
					427.00
					8.75
					129.50
					221.90

Division of the Pacific and Department of California.

[illegible]

Department of Arizona.

[illegible]

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.									
	Desert- ers.	Messen- gers.	Horse and mule nails.	Horse and mule shoes.	Affida- vits.	Shoeing.	Recovery of horses and mules.	Hire of tele- phones.	Office furniture.	Extra duty. Mechan- ics. Clerks. School- teachers. Laborers.
<i>Department of Arizona—Continued.</i>										
Fort Union, N. Mex.										\$30.10
Fort Thomas, Ariz.										\$15.00
San Carlos, Ariz.										88.75
Fort Apache, Ariz.										\$40.50
Fort Lowell, Ariz.										34.50
Fort McDowell, Ariz.										63.00
Fort Grant, Ariz.										10.50
Fort Bowie, Ariz.										43.00
Fort Verde, Ariz.										13.00
Fort Mojave, Ariz.										21.50
Whipple Barracks, Ariz.										50.00
Total.....	\$120.00	\$14.00			\$45.00	\$92.60	\$25.00		\$5,031.52	555.00
<i>Department of the Columbia.</i>										
Vancouver Barracks, Wash.										83.20
Portland, Oregon										237.50
Total.....										385.30
<i>Independent posts.</i>										
Atlanta, Ga.										
Jefferson Barracks, Mo.	8.50				1.50	45.30			1,283.25	
Total.....							10.00	37.40	42.00	
<i>General depots.</i>										
Jeffersonville, Ind.										
San Francisco, Cal.			\$1,618.02	\$1,457.70		17.50		24.90	4.00	
Philadelphia, Pa.				480.00					474.20	
Washington, D. C.									409.66	
New York, N. Y.	30.00				9.50	12.50	75.00			
Saint Louis, Mo.	30.00							28.55	6.50	
Total.....	\$90.00		1,618.02	1,967.70	9.50	30.00	75.00	53.51	894.36	

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

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C. SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	INCIDENTAL EXPENSES.							CAVALRY AND ARTILLERY HORSES.				BARRACKS AND QUARTERS.		
	Inspect- ors.	Veteri- nary surgeons.	Tele- grams.	Interpre- ters.	Laborers.	Adver- tising.	Not otherwise enumer- ated.	Pur- chase.	Printing.	Not otherwise enumer- ated.	Quarters for troops.	Quarters for officers.	Office.	
<i>Department of Dakota.</i>														
Saint Paul, Minn.....			\$209.86				\$506.00						\$25.00	
Helena, Mont.....							8.00						50.00	
Fort Shaw, Mont.....														
Fort Keogh, Mont.....			\$60.00				10.50							
Fort Maginnis, Mont.....														
Fort Snelling, Minn.....		\$35.50												
Total.....		35.50	209.86	50.00			524.50							75.00
<i>Department of Texas.</i>														
San Antonio, Tex.....		20.83	23.13		\$9.00		32.76				\$24.00	\$25.00		
<i>Division of the Pacific and Depart- ment of California.</i>														
Presidio, San Francisco, Cal.....							8.00							
Benicia Barracks, Cal.....							20.50							
Total.....							28.50							
<i>Department of Arizona.</i>														
Los Angeles, Cal.....			181.11				151.25	\$2,712.50		\$108.00	12.00	182.00		506.00
San Diego Barracks, Cal.....														
Tucson, Ariz.....							45.50							
San Carlos, Ariz.....				300.00										
Fort Apache, Ariz.....				48.33										
Fort Mojave, Ariz.....				20.00										
Total.....			181.11	368.33			196.75	2,712.50		108.00	12.00	182.00		506.00
<i>Department of the Columbia.</i>														
Vancouver Barracks Wash.....			49.50				5.00							

<i>Independent posts.</i>									
Atlanta, Ga.....	6.45	4.58				44.55	144.50		
Jefferson Barracks, Mo.....									
Total.....	6.45	4.58				44.55	144.50		
<i>General depots.</i>									
Jeffersonville, Ind.....									
San Francisco, Cal.....	30.00	2.96				67.23	106.53	2,088.01	150.00
Philadelphia, Pa.....		3.63					3.25		
Washington, D.C.....		272.38							
New York, N.Y.....		50.16				207.00			
Saint Louis, Mo.....	123.30	6.09				21.00	1,170.00		21.00
Total.....	153.30	335.22				355.23	1,279.78	2,088.01	171.00

C, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	BARRACKS AND QUARTERS.											Not otherwise enumer- ated.
	Construc- tion.	Repairs.	Renta.	Car- penters.	Plas- terers.	Masons.	Labor.	Stables.	Engineers.	Store- houses.	Advertis- ing.	
<i>Division of the Atlantic and Depart- ment of the East.</i>												
Fort Monroe, Va.....		\$417. 00										
Fort Barranca, Fla.....		397. 70										
Little Rock Barracks, Ark.....		294. 85										
Fort Preble, Me.....		350. 00										
Fort Trumbull, Conn.....		822. 00										
Fort Wayne, Mich.....		275. 00										
Boston, Mass.....											\$118. 83	
Total.....		2, 056. 55									118. 83	
<i>Division and Department of the Mis- sour.</i>												
Fort Leavenworth, Kans.....		2, 027. 14										\$4. 50
Fort Lewis, Colo.....	\$2, 140. 00											
Fort Reno, Ind. T.....		401. 97										
Fort Sill, Ind. T.....		2, 294. 00		\$186. 00		\$20. 00						14. 70
Total.....	2, 140. 00	4, 723. 11		186. 00		20. 00						19. 20
<i>Department of the Platte.</i>												
Omaha, Nebr.....	8, 500. 00											
Ogden, Utah.....												5. 00
Fort Bridger, Wyo.....	375. 00											
Total.....	8, 875. 00											5. 00
<i>Department of Dakota.</i>												
Saint Paul, Minn.....		1, 196. 87									7. 70	86. 33
Helena, Mont.....		149. 10						\$25. 00				

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G, SUPPLEMENTAL.—Statement showing in detail amounts expended from the various appropriations for the Quartermaster's Department, etc.—Continued.

Division and post.	CLOTHING AND EQUIPAGE.							HOSPITALS.			Shooting galleries and ranges.	Quarters for hospital stewards.	
	Purchase.	Manufacture.	Advertising.	Repairs.	Royalty.	Printing.	Not otherwise enumerated.	Extra-duty labor.	Construction of hospitals and repairs.				Mechanics and laborers.
									Construction.	Repairs.			
Division of the Atlantic and Department of the East.													
Fort Monroe, Va.....										\$335.00			
Saint Francis Barracks, Fla.....										15.90			
Mount Vernon Barracks, Ala.....										31.00			
Little Rock Barracks, Ark.....										175.00			
Fort Preble, Me.....										7.70			
Fort Adams, R. I.....										169.20			
Total.....										783.80			
Division and Department of the Missouri.													
Fort Leavenworth, Kans.....										84.62			\$796.00
Fort Reno, Ind. T.....										30.00			
United States Military Prison, Fort Leavenworth.....	\$265.75		\$463.38		\$132.68		\$20.83						
Fort Riley, Kans.....									\$4,500.00	224.83		\$2.33	
Fort Crawford, Colo.....								\$7.20					
Fort Sill, Ind. T.....								7.20	4,500.00	339.45		2.33	796.00
Total.....	265.75		463.38		132.68		20.83						774.50
Department of the Plains.													
Fort Niobrara, Nebr.....													
Department of Dakota.													
Saint Paul, Minn.....										355.12			
Fort Custer, Mont.....												4.40	
Fort Shaw, Mont.....												2.11	
Fort Missoula, Mont.....			\$57.50									4.10	
Fort Keogh, Mont.....			62.00									2.20	
Fort Buford, Dak.....			120.00										

D.—Statement showing in detail cost of transportation of the Army during the fiscal year ending June 30, 1888, with a recapitulation.

FOR RAIL TRANSPORTATION.

[Excluding allowances for services of the bonded Pacific Railroad Companies, \$492,426.32, and of certain land-grant railroad companies, \$50,000.]

Department, depot, or post.	By accounts paid prior to July 1, 1888.		By outstanding accounts unsettled July 1, 1888.		Total cost of service performed during the fiscal year.
	Passenger.	Freight.	Passenger.	Freight.	
The East.....	\$4,728.45	\$8,608.10	\$261.11	\$1,834.50	\$15,432.16
The Missouri.....	27,566.56	65,149.26	49,258.72	45,184.00	187,138.54
The Platte.....	1,208.08	1,747.35	1,482.23	886.41	5,324.07
Dakota.....	9,303.37	11,999.52	20,114.00	9,141.78	50,558.47
Texas.....	5,563.07	33,096.26	7,336.45	27,713.10	73,708.88
Arizona.....	1,831.00	4,170.07	691.50	518.02	6,708.59
The Columbia.....	40.50	484.07	29.00	110.36	663.93
New York, N. Y.....	27,627.10	9,575.08	4,016.17	2,427.70	43,646.05
Washington, D.C.....	4,551.26	3,940.03	3,353.21	1,674.20	13,518.70
Philadelphia, Pa.....	890.26	2,327.17	69.90	815.33	4,102.66
Jeffersonville, Ind.....	1,048.18	9,996.79	478.59	4,082.97	15,604.53
San Francisco, Cal.....	1,534.11	3,915.84	136.80	457.44	6,044.19
Saint Louis, Mo.....	16,744.89	17,631.44	9,860.28	4,494.13	48,730.74
Chicago, Ill.....	24,137.59	36,435.07	9,721.40	20,057.41	90,351.47
Atlanta, Ga.....		6.30			6.30
David's Island, N. Y.....	20.00				20.00
Columbus Barracks, Ohio.....	9,646.25	298.54	2,947.49	77.65	12,069.93
West Point, N. Y.....		8.20			8.20
Watertown Arsenal, Mass.....		8.25			8.25
Frankford Arsenal, Pa.....	24.00				24.00
Hot Springs, Ark.....		3.25			3.25
Quartermaster-General's Office and the Treasury.....	53,472.93	106,945.96			160,418.79
Total.....	189,437.60	316,346.25	108,854.85	119,453.00	734,091.70

FOR WATER TRANSPORTATION.

The East.....	11,636.28	11,035.89	284.00	741.56	23,697.73
Dakota.....	3,421.65	6,069.03	5,254.84	1,642.17	16,387.69
Texas.....	205.33	895.07		210.43	1,310.83
California.....	60.00	50.00			110.00
Arizona.....	22.00	1,087.83		341.00	1,450.83
The Columbia.....	913.50	5,577.21	20.00	.75	6,511.46
New York, N. Y.....	812.29	5,205.07	103.20	2,081.74	8,202.30
Washington, D.C.....	45.50	1,094.65	6.50	139.78	1,286.43
Philadelphia, Pa.....		1,957.45			1,957.45
Jeffersonville, Ind.....	81.50	5.97			87.47
San Francisco, Cal.....	1,355.20	742.85	295.50	466.40	2,859.95
Saint Louis, Mo.....		130.70		100.90	291.60
Chicago, Ill.....	22.00	1,002.86			1,024.86
West Point, N. Y.....	4.00				4.00
Frankford Arsenal, Pa.....	1.80				1.80
Quartermaster-General's Office and the Treasury.....	38.26				38.26
Total.....	18,619.31	34,854.58	5,964.04	5,784.73	65,222.66

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

FOR WAGON TRANSPORTATION.

Department, depot, or post.	Freight.		Total cost during the fiscal year.
	By accounts paid prior to July 1, 1888.	By outstanding accounts unsettled July 1, 1888.	
The East.....	\$7,770.60	\$169.05	\$7,939.65
The Missouri.....	38,323.74	10,117.24	48,440.98
The Platte.....	34,471.12	3,043.91	37,515.03
Dakota.....	21,309.43	5,046.36	26,355.79
Texas.....	10,993.04	4,831.12	15,824.16
California.....	12,814.96	3,129.22	15,944.18
Arizona.....	34,653.07	9,171.43	43,825.10
The Columbia.....	8,297.72	1,838.59	10,136.31
New York, N. Y.....	6,396.84	431.16	6,738.00
Washington, D. C.....	1,459.13	.....	1,459.13
Philadelphia, Pa.....	548.06	75.66	623.72
Jeffersonville, Ind.....	3,443.45	195.96	3,639.41
San Francisco, Cal.....	7,759.03	1,593.40	9,352.43
Saint Louis, Mo.....	3,014.51	.....	3,014.51
Chicago, Ill.....	2,215.92	.....	2,215.92
Atlanta, Ga.....	85.87	.....	85.87
David's Island, N. Y.....	1,700.00	.....	1,700.00
Rock Island Arsenal, Ill.....	1,253.27	.....	1,253.27
Willetts Point, N. Y.....	833.54	.....	833.54
Watervliet Arsenal, N. Y.....	860.95	.....	860.95
Frankfort Arsenal, Pa.....	396.54	.....	396.54
Augusta Arsenal, Ga.....	40.69	.....	40.69
Kennebec Arsenal, Me.....	37.65	.....	37.65
Allegheny Arsenal, Pa.....	117.74	.....	117.74
Benicia Arsenal, Cal.....	56.01	.....	56.01
Quartermaster-General's Office and the Treasury.....	7,928.82	.....	7,928.82
Total.....	206,142.30	39,643.10	245,785.40

FOR STAGE TRANSPORTATION.

Department, depot, or post.	Passengers and extra baggage.		Total cost of service during the fiscal year.
	By amounts paid prior to July 1, 1888.	By outstanding accounts unsettled July 1, 1888.	
The East.....	\$483.35	.....	\$483.35
The Missouri.....	1,278.79	\$264.50	1,543.29
The Platte.....	3,396.27	74.80	3,471.07
Dakota.....	3,645.31	1,106.70	4,752.01
Texas.....	1,061.18	305.00	1,366.18
California.....	125.00	.....	125.00
Arizona.....	2,724.61	1,209.75	3,934.36
The Columbia.....	890.25	255.50	1,145.75
New York, N. Y.....	11.80	.....	11.80
Washington, D. C.....	123.50	.....	123.50
Philadelphia, Pa.....	25.00	.....	25.00
Jeffersonville, Ind.....	.60	.....	.60
San Francisco, Cal.....	4,870.90	136.00	5,006.90
Saint Louis, Mo.....	42.00	.....	42.00
Chicago, Ill.....	15.00	.....	15.00
Atlanta, Ga.....	5.00	.....	5.00
Columbus Barracks, Ohio.....	16.00	.....	16.00
Frankford Arsenal, Pa.....	7.20	.....	7.20
Quartermaster-General's Office and the Treasury.....	70.15	.....	70.15
Total.....	18,791.91	3,352.25	22,144.16

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

FOR TRANSPORTATION EMPLOYÉS.

[Including agents, wagon-masters, hostlers, packers, crews of vessels, etc.]

Department, depot, or post.	By payments made prior to July 1, 1888.		By amounts due and unpaid July 1, 1888.		Total cost of service during the fiscal year.
	To civilian employés.	To enlisted men on extra duty.	To civilian employés.	To enlisted men on extraduty.	
The East.....	\$35,809.79	\$10,839.05	\$225.00	\$254.10	\$47,127.94
The Missouri.....	61,404.36	9,358.73	570.00	78.40	71,411.49
The Platte.....	77,061.30	1,393.25	150.00	32.55	78,637.10
Dakota.....	105,418.99	10,773.75	900.66	63.33	117,156.75
Texas.....	35,351.34	13,760.25	642.55	485.45	50,239.59
California.....	35,696.98	4,104.03	175.00	281.80	40,257.81
Arizona.....	76,942.44	16,733.93	6,044.67	968.90	100,689.94
The Columbia.....	34,283.59	9,337.23	623.33	75.85	44,320.00
New York, N. Y.....	12,319.96			866.29	13,186.25
Washington, D. C.....	18,719.86				18,719.86
Philadelphia, Pa.....	0,962.36				0,962.36
Jeffersonville, Ind.....	14,862.58		212.00		15,104.58
San Francisco, Cal.....	6,698.40				6,698.40
Saint Louis, Mo.....	6,577.84		51.00		6,628.84
Chicago, Ill.....	7,724.99				7,724.99
U. S. Military Prison, Fort Leavenworth, Kans.....	1,000.00				1,000.00
Atlanta, Ga.....	10,391.45	9.40			10,400.85
Jefferson Barracks, Mo.....	1,713.35	907.00		12.25	2,632.60
West Point, N. Y.....	286.60	3,101.64			3,388.24
Willels Point, N. Y.....		1,698.53			1,698.55
Watervliet Arsenal, N. Y.....	6.00				6.00
Fort A. Lincoln Ordnance Depot, Dakota.....	330.00				330.00
Benicia Arsenal, Cal.....	342.20				342.20
Watertown Arsenal, Mass.....	145.70				145.70
Frankford Arsenal, Pa.....	1,014.46				1,014.46
Hot Springs, Ark.....	461.19				461.19
Newport Barracks, Ky.....		10.85			10.85
David's Island, N. Y.....	3,986.48	668.85			4,655.33
Columbus Barracks, Ohio.....	246.25	836.45			1,082.70
Total.....	558,788.46	83,532.96	9,594.21	3,118.94	655,034.57

FOR VESSELS.

Department, depot, or post.	By accounts paid prior to July 1, 1888.			By outstanding accounts unsettled July 1, 1888.			Total cost of service during the fiscal year.
	Purchasing, operating, and maintaining.	Chartering from private parties.	Repairing.	Purchasing, operating, and maintaining.	Chartering from private parties.	Repairing.	
The East.....	\$12,294.52	\$459.00	\$6,646.94		\$91.00	\$4,531.07	\$24,022.53
Dakota.....	178.80						178.80
California.....	9,036.69		343.41	\$2,017.61			11,437.71
The Columbia.....	1,052.80	2,894.50		720.00			4,677.30
New York, N. Y.....	18,742.68	15,428.00	6,550.60				40,721.27
Washington, D. C.....	5.00						5.00
David's Island, N. Y.....	28.33		3,218.00				3,246.33
Saint Louis, Mo.....			2.50				2.50
Total.....	41,336.82	18,691.50	16,761.54	2,767.61	91.00	4,531.07	84,179.54

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

FOR MEANS OF TRANSPORTATION

Department, depot, or post.	By amounts paid prior to July 1, 1888.		By amounts due and unpaid July 1, 1888.		Total cost during the fiscal year.
	Purchases (including vehicles and parts of vehicles).	Repairing (including services and miscellaneous purchases).	Purchases (including vehicles and parts of vehicles).	Repairing (including services and miscellaneous purchases).	
The East.....	\$1,915.88	\$1,550.32			\$3,466.20
The Missouri.....	1,472.33	1,908.60		\$330.70	3,711.63
The Platte.....	2,767.49	812.95		1,213.46	4,793.90
Dakota.....	3,836.09	1,583.50		4.15	5,423.74
Texas.....	3,851.38	1,915.56		163.49	5,930.43
California.....	2,822.17	804.45		104.50	3,731.12
Arizona.....	625.94	541.64		62.50	1,230.08
The Columbia.....	3,259.23	3,134.38	\$3,921.22		10,314.83
New York, N. Y.....	1,205.13	1,524.00	32.29		2,761.42
Washington, D. C.....		972.00			972.00
Philadelphia, Pa.....	270.00	200.19			470.19
Jeffersonville, Ind.....	31,342.94	5,851.65	3,795.16	248.90	41,238.65
San Francisco, Cal.....	13,597.24	12,696.67	1,435.00		27,728.91
Saint Louis, Mo.....	2,962.88	605.04	13,803.00	178.28	17,489.20
Chicago, Ill.....	1,569.36	1,361.47			2,930.83
Atlanta, Ga.....	367.80	74.00			441.80
Jefferson Barracks, Mo.....				15.00	15.00
David's Island, N. Y.....	67.00	214.10			281.10
Columbus Barracks, Ohio.....	77.05	111.28			188.33
West Point, N. Y.....	72.14				72.14
Total.....	72,982.05	35,861.80	22,986.67	2,320.98	133,251.50

FOR PUBLIC ANIMALS AND HARNESS.

Department, depot, or post.	Draft animals purchased.	By payments made prior to July 1, 1888.				By amounts due and un- paid July 1, 1888.				Total cost during the fiscal year.
		Draft horses and mules purchased.	Stabling, watering, at- tending, etc., public animals.	Harness.		Stabling, watering, at- tending, etc., public animals.	Harness.			
				Purchasing and manufacturing harness and har- ness materials.	Repairing.		Purchasing and manufacturing harness and har- ness materials.	Repairing.		
The East.....	No. 6	\$1, 149. 50	\$13. 52	\$409. 10	\$63. 85				\$1, 641. 97	
The Missouri.....			364. 87	910. 14	115. 10	\$12. 00		\$207. 09	1, 609. 20	
The Platte.....			119. 45	802. 88					922. 33	
Dakota.....			3, 397. 73	1, 026. 71	29. 29	56. 63			4, 510. 36	
Texas.....			806. 64	1, 506. 91	149. 89	488. 45			2, 951. 89	
California.....			64. 90		58. 25				123. 15	
Arizona.....			2, 483. 91	219. 22	333. 25	705. 48			3, 741. 86	
The Columbia.....			271. 34	1, 021. 60	1, 013. 15	32. 20	\$1, 895. 83		4, 234. 12	
New York, N. Y.....	9	2, 142. 50	189. 50	854. 51	149. 85				3, 336. 36	
Washington, D. C.....			33. 25		10. 00				43. 25	
Philadelphia, Pa.....				78. 00				0. 15	81. 15	
Jeffersonville, Ind.....	7	1, 230. 00	6. 75	11, 853. 48			2, 499. 93		15, 590. 16	
San Francisco, Cal.....	2	450. 00	753. 50	11, 018. 83					12, 222. 33	
Saint Louis, Mo.....	5	790. 00	115. 50	573. 69	13. 50			88. 94	1, 581. 63	
Chicago, Ill.....			3. 50	1, 083. 73	13. 35				1, 100. 58	
Atlanta, Ga.....	1	140. 00	12. 25	49. 90					202. 15	
David's Island, N. Y.....				3. 00					3. 00	
Columbus Barracks, Ohio.....	3	650. 00		32. 50					682. 50	
West Point, N. Y.....				131. 35					131. 35	
U. S. Military Prison, Fort Leavenworth.....				11, 077. 80					11, 077. 80	
Total.....	33	6, 552. 00	8, 636. 61	42, 653. 35	1, 955. 48	1, 294. 76	4, 395. 76	302. 18	65, 790. 14	

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

FOR WATER SUPPLY AND SEWERAGE.

Department, depot, or post.	By payments made prior to July 1, 1888.			By outstanding accounts unsettled July 1, 1888.		Total cost during the fiscal year.
	Water rent and taxes.	Materials purchased.	Constructing, repairing, and digging wells.	Water rent and taxes.	Material purchased and constructing and repairing.	
The East.....	\$9,059.52	\$33,618.15	\$13,637.96	\$840.93	.....	\$57,156.56
The Missouri.....	6,655.64	5,513.78	9,954.73	58.00	\$7,370.57	29,563.02
The Platte.....	7,878.14	5,486.72	1,205.13	.....	.....	14,569.99
Dakota.....	212.70	12,383.86	347.13	57.23	21.30	13,022.22
Texas.....	5,635.85	4,492.95	6,804.96	519.90	848.00	18,302.65
California.....	2,275.26	1,605.18	547.90	34.83	.....	4,463.17
Arizona.....	2,939.19	3,694.41	7,242.95	.....	307.00	14,183.55
The Columbia.....	5,349.35	6,887.22	5,087.60	25.00	27,093.48	43,942.65
New York, N. Y.....	430.28	18,571.61	4,126.00	160.00	.....	23,287.89
Washington, D. C.....	14.00	4,717.13	900.00	.....	.....	5,631.13
Philadelphia, Pa.....	.....	362.61	26.30	.....	.....	388.91
Jeffersonville, Ind.....	7.00	4,514.71	115.00	.....	12.00	4,648.71
San Francisco, Cal.....	959.30	20,748.52	.....	.....	.....	21,707.82
Saint Louis, Mo.....	238.00	6,590.94	372.74	126.00	133.89	7,461.57
Chicago, Ill.....	310.46	3,668.37	28.05	.....	.....	4,006.88
Atlanta, Ga.....	.....	5,312.29	14,679.78	.....	.....	19,992.07
Jefferson Barracks, Mo.....	.....	1,194.11	44.45	.....	.....	1,238.56
David's Island, N. Y.....	.....	1,018.42	96.42	.....	3,202.24	4,317.08
Columbus Barracks, Ohio.....	1,406.14	1,170.69	.....	125.00	.....	2,701.83
Hot Springs, Ark.....	381.31	143.38	.....	.....	.....	524.69
Allegheny Arsenal, Pa.....	.....	.....	1.25	.....	.....	1.25
Willetts Point, N. Y.....	.....	1,277.73	7,299.00	.....	.....	8,504.73
Newport Barracks, Ky.....	50.69	.....	10.85	.....	.....	61.54
Total.....	43,802.83	142,472.78	72,458.20	1,946.89	38,989.77	299,670.47

FOR WHARVES, BRIDGES, ROADS, HARBORS, AND RIVERS.

Department, depot, or post.	By payments made prior to July 1, 1888.			By amounts due and unpaid July 1, 1888.		Total cost during the fiscal year.
	Wharves and bridges.		Roads, harbors, and rivers.	Wharves and bridges.	Roads, harbors, and rivers.	
	Constructing and repairing.	Rent of wharves and wharfage.	Constructing roads and for repairs and removal of obstructions.	Constructing and repairing.	Constructing roads and for repairs and removal of obstructions.	
The East.....	\$4,681.70	\$1,115.04	\$4,389.41	\$3,713.00	.....	\$13,899.15
The Missouri.....	.....	.....	5,483.46	.....	\$2,562.83	8,046.29
The Platte.....	.....	.....	2,072.31	.....	540.00	2,612.31
Dakota.....	.....	.....	19.40	.....	.....	19.40
Texas.....	.....	.....	1,641.72	.....	.....	1,641.72
California.....	.....	1,083.00	10.00	.....	.....	1,093.00
The Columbia.....	143.50	315.20	1,870.20	.....	249.70	2,578.60
New York, N. Y.....	2,012.50	9,000.00	783.90	.....	.....	11,796.40
Philadelphia, Pa.....	.....	.....	2,044.00	.....	.....	2,044.00
Jeffersonville, Ind.....	.....	.....	1,856.45	.....	.....	1,856.45
San Francisco, Cal.....	.....	240.00	55.80	.....	.....	295.80
Atlanta, Ga.....	.....	1,523.40	10,087.48	.....	.....	11,610.88
David's Island, N. Y.....	500.00	450.00	949.50	1,350.00	.....	3,249.50
Columbus Barracks, Ohio.....	.....	.....	1,000.00	.....	.....	1,000.00
Washington, D. C.....	100.81	.....	6,511.76	15,141.58	.....	21,754.15
Saint Louis, Mo.....	.....	.....	60.00	.....	.....	60.00
Watervliet Arsenal, N. Y.....	.....	.....	573.50	.....	.....	573.50
Total.....	7,438.51	13,720.64	39,408.89	20,204.58	3,352.53	84,131.15

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

[For tolls, advertisements, publications, printing, re-imbursements, boxes, and other articles for packing and protecting freight; lumber, rope, and miscellaneous articles and services.]

Department, depot, or post.	By accounts paid prior to July 1, 1888.					
	Tolls on turn-pikes, ferries, and bridges.	Advertisements, publications, and printing.	Re-imbursements of traveling expenses and payments from private funds for public purposes.	Boxes, canvas, and other articles for packing and protecting freight.	Lumber, rope, and purchases of miscellaneous articles.	
The East.....	\$271.83	\$171.52	\$58.89	\$8.50	\$4,484.43	
The Missouri.....	728.10	251.94	804.90	154.03	2,765.84	
The Platte.....	39.90	106.75	309.30	327.00	4,510.75	
Dakota.....	746.25	121.08	277.75	217.31	3,725.83	
Texas.....	58.37	413.33	193.40		2,529.65	
California.....	40.00	4.00	166.18		209.05	
Arizona.....	134.81	117.58	401.90	2,583.11	3,191.16	
The Columbia.....	1,300.93	88.32	719.95	432.80	2,483.54	
New York, N. Y.....	16.70	353.96	253.38	109.41	4,726.27	
Washington, D. C.....	178.75	221.17	479.29		46.83	
Philadelphia, Pa.....		2.80	56.10	2,289.40	194.07	
Jeffersonville, Ind.....	353.75	1,021.58	283.45	296.61	24,609.49	
San Francisco, Cal.....	19.70	100.17	35.00	4,038.64	10,222.75	
Saint Louis, Mo.....		154.01	49.50	6,690.18	254.21	
Chicago, Ill.....		14.00	11.50		883.76	
United States Military Prison, Fort Leavenworth, Kans.....					3,177.03	
Atlanta, Ga.....		87.97			1,120.58	
Jefferson Barracks, Mo.....					100.08	
David's Island, N. Y.....		197.41			502.60	
Columbus Barracks, Ohio.....		4.00			111.00	
Watervliet Arsenal, N. Y.....		15.56				
Vancouver Barracks, Wyo.....					498.00	
Kennebec Arsenal, Me.....		6.15	6.00		.50	
Frankford Arsenal, Pa.....	16.80					
Willels Point, N. Y.....		73.10			30.24	
Watertown Arsenal, Mass.....		6.38				
Total.....	3,905.89	3,592.78	4,106.49	17,063.08	70,377.66	

Department, depot, or post.	By outstanding accounts unsettled July 1, 1888.					Total cost during the fiscal year.
	Tolls on turn-pikes, ferries, and bridges.	Advertisements, publications, and printing.	Boxes, canvas, and other articles for packing and protecting freight.	Lumber, rope, and purchases of miscellaneous articles.	Re-imbursements of traveling expenses and payments from private funds for public purposes.	
The East.....				\$599.30		\$5,594.56
The Missouri.....				322.24		5,031.05
The Platte.....				114.89		5,468.59
Dakota.....	\$256.00	\$20.21		174.75		5,539.18
Texas.....		24.26		893.99	\$134.50	4,247.50
California.....	66.00			104.50		589.73
Arizona.....		520.50		821.90		7,772.96
The Columbia.....	14.00			2,817.01		7,856.55
New York, N. Y.....		579.70		33.65	43.31	6,116.38
Washington, D. C.....					2.25	928.29
Philadelphia, Pa.....		62.10	1,667.11	200.45	164.65	4,636.77
Jeffersonville, Ind.....	14.50	726.30		5,117.16	20.90	32,353.74
San Francisco, Cal.....						14,416.26
Saint Louis, Mo.....		34.32			6.03	7,185.25
Chicago, Ill.....						909.26
United States Military Prison, Fort Leavenworth, Kans.....				850.71		4,027.74
Atlanta, Ga.....						1,208.55
Jefferson Barracks, Mo.....						100.08
David's Island, N. Y.....						700.01
Columbus Barracks, Ohio.....						115.00
Watervliet Arsenal, N. Y.....				2.00		17.56
Vancouver Barracks, Wyo.....						498.00
Kennebec Arsenal, Me.....						12.65
Frankford Arsenal, Pa.....						16.80
Willels Point, N. Y.....				1,426.50		1,529.84
Watertown Arsenal, Mass.....						6.38
Total.....	350.50	1,967.39	1,667.11	13,479.14	371.64	116,881.6

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

RECAPITULATION.

Nature of accounts.	Amount of payments during the year.	Amounts due and unpaid July 1, 1888.	Total cost of transportation service during the year ending June 30, 1888
Rail:			
Passenger.....	\$189,437.60	\$108,854.85	\$298,292.45
Freight.....	316,346.25	119,453.00	435,799.25
Water:			
Passenger.....	18,619.31	5,964.04	24,583.35
Freight.....	34,854.58	5,784.73	40,639.31
Wagon: freight.....	206,142.30	89,643.10	295,785.40
Stage and hack.....	18,791.91	3,352.25	22,144.16
Employés:			
Civilian.....	558,788.46	9,594.21	568,382.67
Extra duty.....	83,532.96	3,118.94	86,651.90
Vessels:			
Purchasing, operating, and maintaining.....	41,336.82	2,767.61	44,104.43
Chartering.....	18,691.50	91.00	18,782.50
Repairing.....	16,761.54	4,531.07	21,292.61
Means of transportation:			
Purchasing.....	72,082.05	22,986.67	95,068.72
Repairing and purchasing material for repairing.....	35,861.80	2,320.98	38,182.78
Public animals and harness:			
Draft horses and mules.....	6,552.00		6,552.00
Stabling, watering, and attending public animals.....	8,636.61	1,204.76	9,841.37
Purchasing and manufacturing harness.....	42,653.35	4,895.76	47,549.11
Repairing harness.....	1,955.48	302.18	2,257.66
Water supply and sewerage:			
Water rent and taxes.....	43,802.83	1,946.89	45,749.72
Material purchased.....	142,472.78		142,472.78
Constructing and repairing.....	72,458.20	38,989.77	111,447.97
Wharves and bridges:			
Constructing and repairing.....	7,438.51	20,204.58	27,643.09
Rent of wharves and wharfage.....	13,726.64		13,726.64
Roads, harbors, and rivers: constructing and repairing roads and removing obstructions from harbors and rivers..	39,408.89	3,352.53	42,761.42
Tolls on turnpikes, ferries, and bridges.....	3,905.89	350.50	4,256.39
Advertisements, publications, and printing.....	3,592.78	1,967.39	5,560.17
Boxes and other articles for packing and protecting freight	17,063.08	1,667.11	18,730.19
Lumber, rope, and miscellaneous articles and services.....	70,377.66	13,479.14	83,856.80
Re-imbursements of traveling expenses, and payments from private funds for public purposes.....	4,106.49	371.04	4,477.53
Total.....	2,089,398.27	416,784.70	2,506,182.97

Nature of accounts.	The East.	The Missouri.	The Platte.	Dakota.	Texas.
Rail.....	\$15,432.16	\$187,138.54	\$5,324.07	\$50,558.47	\$73,706.88
Water.....	23,697.73			16,387.69	1,310.83
Wagon.....	7,939.65	48,440.98	37,515.03	26,365.79	15,824.16
Stage.....	483.35	1,543.29	3,471.07	4,732.01	1,366.18
Employés in the transportation service.....	47,127.94	74,411.49	78,037.10	117,156.75	50,239.59
Vessels.....	24,022.53			176.80	
Means of transportation.....	3,468.20	3,711.63	4,793.90	5,483.74	5,980.43
Draught animals and harness.....	1,628.45	1,232.33	802.88	1,056.00	1,656.80
Stabling public animals.....	13.52	376.87	119.45	3,454.36	1,296.08
Water supply and sewerage.....	57,156.56	29,553.02	14,569.99	13,022.23	18,302.65
Wharves and bridges.....	9,509.74				
Roads, harbors, and rivers.....	4,389.41	8,046.29	2,612.31	19.40	1,641.72
Tolls on turnpikes, ferries, and bridges.....	271.83	728.10	39.90	1,002.25	58.37
Advertisements, publications, and printing.....	171.52	251.94	166.75	140.29	437.59
Re-imbursements.....	58.89	804.90	309.30	277.75	327.90
Boxes and other articles for packing and protecting freight.....	8.50	158.03	327.00	217.81	
Lumber, rope, and miscellaneous articles and services.....	5,083.82	3,088.08	4,625.64	3,900.58	3,423.64
Total.....	200,461.80	359,485.49	153,314.39	243,761.41	175,528.83

D.—Statement showing in detail cost of transportation of the Army, etc.—Continued.

RECAPITULATION—Continued.

Nature of accounts.	California.	Arizona.	The Columbia.	Depots, independent posts, and arsenals.	Quartermaster-General's Office and the Treasury.	Total.
Rail		\$6,708.59	\$663.93	\$234,138.27	\$160,418.79	\$734,091.70
Water	\$110.00	1,450.83	6,511.46	15,715.86	38.26	65,222.66
Wagon	15,944.18	43,825.10	10,136.31	31,875.38	7,928.82	245,785.40
Stage	125.00	3,934.36	1,145.75	5,253.00	70.15	22,144.16
Employees in the transportation service.....	40,257.81	100,680.94	44,320.00	102,193.95		655,034.57
Vessels	11,427.71		4,577.30	43,975.20		84,179.54
Means of transportation.....	3,731.12	1,230.08	10,314.83	94,589.57		133,251.50
Draught animals and harness.....	58.25	552.47	3,930.58	44,941.01		55,853.77
Stabling public animals.....	64.90	3,189.39	303.54	1,114.25		9,931.37
Water supply and sewerage.....	4,463.17	14,183.55	43,942.65	104,476.66		299,670.47
Wharves and bridges.....	1,063.00		458.70	30,318.29		41,369.73
Roads, harbors, and rivers.....	10.00		2,119.90	23,922.39		42,761.42
Tolls on turnpikes, ferries, and bridges.....	106.00	134.81	1,314.93	600.20		4,256.39
Advertisements, publications, and printing.....	4.00	638.08	88.32	3,661.68		5,560.17
Reimbursements.....	166.18	401.90	719.95	1,411.36		4,478.13
Boxes and other articles for packing and protecting freight.....		2,585.11	432.80	15,001.44		18,730.19
Lumber, rope, and miscellaneous articles and services.....	313.55	4,013.06	5,300.55	54,107.88		83,850.80
Total	77,864.87	183,537.27	136,281.50	807,296.39	168,456.92	2,506,182.97

E.—Abstract of payments during fiscal year 1888 on account of railroad and express companies.

[The following is an abstract of payments during the year on account of railroad and express companies for military transportation out of the appropriation "Transportation of the Army," upon accounts settled by disbursing quartermasters stationed throughout the country, and through the Quartermaster-General's Office, and the accounting officers of the Treasury:]

Company.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Adams Express.....		\$8.08	\$308.10	\$316.18
American Express.....			231.87	231.87
Atchison, Topeka and Santa Fé.....	\$37.52	21,899.38	49,662.24	71,599.14
Atchison, Topeka and Santa Fé Express.....			34.00	34.00
Atlantic and Pacific.....		19.58	27,251.56	27,270.94
Atlantic and North Carolina.....			29.00	29.00
Atlanta and West Point.....			53.93	53.93
Allegheny Valley.....			13.80	13.80
Alexandria and Fredericksburgh.....			.15	.15
Annapolis, Washington and Baltimore.....			113.35	113.35
Alabama Great Southern.....			1.30	1.30
Areata and Meade River.....		4.00		4.00
Baltimore and Ohio Express.....			.40	.40
Baltimore and Ohio.....		31.24	7,196.50	7,227.83
Baltimore and Potomac.....		9.23	740.90	750.13
Boston and Albany.....			479.81	479.81
Boston and Maine.....			90.36	90.36
Boston and Providence.....			1.00	1.00
Boston and Lowell.....			16.42	16.42
Burlington and Missouri River in Nebraska.....			818.93	818.93
Burlington and Lamolille.....			10.87	10.87
Buffalo, New York and Philadelphia.....			24.90	24.90
Barton Stock Car Company.....			16.68	16.68
Burlington and Missouri River.....		719.24		719.24
California Southern.....		31.78	2,605.57	2,637.35
California Central.....		38.46	173.96	212.42
Cairo, Vincennes and Chicago.....			11.60	11.60
Chesapeake and Ohio.....			1,042.51	1,042.51
Central Railroad of New Jersey.....			894.77	894.77

E.—Abstract of payments during fiscal year 1888 on account of railroad and express companies—Continued.

Company.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Central Vermont and line of steamers			\$955.01	\$955.01
Chicago, Burlington and Northern		\$4.14	232.80	236.94
Chicago, Burlington and Quincy		2,380.80	3,467.80	5,798.60
Chicago and Atlantic			42.28	42.28
Chicago and Alton			3,370.60	3,370.60
Chicago and Grand Trunk			1,431.11	1,431.11
Chicago and Northwestern	\$47.47	4,148.70	7,898.51	12,094.68
Chicago, Peoria and Saint Louis			11.31	11.31
Chicago, Milwaukee and Saint Paul		5,485.89	5,980.91	11,416.30
Chicago, Saint Louis and Pittsburgh		776.24	1,342.59	2,118.83
Chicago and Eastern Illinois .....			.41	.41
Chicago, Rock Island and Pacific		4,728.30	6,012.56	10,738.86
Chicago, Saint Paul, Minneapolis and Omaha		585.68	2,969.41	3,555.09
Cincinnati, New Orleans and Texas Pacific		3.49	46.70	44.19
Cincinnati, Sandusky and Cleveland			806.06	806.06
Cincinnati, Hamilton and Dayton			43.36	43.36
Cincinnati Southern			13.30	13.30
Cincinnati, Indianapolis, Saint Louis and Chicago		17.10	80.12	97.22
Cincinnati, Washington and Baltimore		17.00	49.95	66.95
Cleveland, Columbus, Cincinnati and Indianapolis		51.27	592.62	643.89
Cleveland, Lorain and Wheeling			2.30	2.30
Columbus, Cincinnati and Midland			2,177.92	2,177.92
Columbus, Hocking Valley and Toledo			2,828.50	2,828.50
Charleston and Savannah			8.15	8.15
Connecticut River			632.50	632.50
Cœur d'Alene Railway and Navigation Company			524.57	524.57
Concord			5.08	5.08
Cumberland Valley		1.14		1.14
Central Railroad and Banking Company of Georgia		12.30		12.30
Delaware and Hudson Canal Company			915.24	915.24
Delaware, Lackawanna and Western			3,752.53	3,752.53
Denver and Rio Grande			30,765.44	30,765.44
Denver and Rio Grande Express			84.56	84.56
Denver, Rio Grande and Western			2,509.08	2,509.08
Detroit, Lansing and Northern			16.30	16.30
Duluth, South Shore and Atlantic			17.87	17.87
East Tennessee Virginia and Georgia			101.03	101.03
Empire Line			1,583.76	1,583.76
Erie Dispatch			2,510.69	2,510.69
Evansville and Terre Haute			14.76	14.76
Elmira, Portland and Northern .....	.45			.45
Fremont, Elkhorn and Missouri Valley		1,709.65	33,205.06	35,025.71
Fort Worth and Denver City		6.65	850.92	857.57
Fort Wayne and Elmira			45.75	45.75
Fitchburg			1,056.71	1,056.71
Florida Southern			13.80	13.80
Florida Railway and Navigation	25.10	16.03	8.33	44.45
Galveston, Harrisburgh and San Antonio		2,228.81		2,228.81
Georgia		13.11	15.77	28.88
Gettysburgh and Harrisburgh			10.00	10.00
Grand Trunk			35	35
Gulf, Colorado and Santa Fé		186.48	77.53	264.01
Grand Rapids and Indiana	5.81	6.99	4,317.75	4,329.55
Heatonville, Mantua and Fairmount			50.00	50.00
Hot Springs		6.08	78.53	84.61
Houston and Texas Central			96.30	96.30
Houston			10.65	10.65
Hannibal and Saint Joe .....		.77	13.09	13.86
Illaho Central			129.14	129.14
Illinois Central		1,475.08	1,362.84	2,837.92
Indiana, Bloomington and Western			1,508.65	1,508.65
Indianapolis and Saint Louis			44.37	44.37
Indianapolis, Decatur and Springfield			12.96	12.96
Jacksonville, Tampa and Key West		17.95	170.51	188.46
Jacksonville and Southeastern		10.02		10.02
Kansas City, Saint Joseph and Council Bluffs		673.55	374.38	1,047.93
Kentucky Central			16.00	16.00
Kansas City, Springfield and Memphis			16.36	16.36
Kansas City, Fort Scott and Gulf .....	.74	13.00	14.25	27.99
Lake Shore and Michigan Southern		74.50	1,376.35	1,450.85
Lake Erie and Western			16.30	16.30
Long Island			228.77	228.77
Lehigh Valley			2,117.25	2,117.25
Lindell			30.00	30.00

E.—Abstract of payments during fiscal year 1888 on account of railroad and express companies—Continued.

Company.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Louisville, Evansville and Saint Louis			\$2.35	\$2.35
Louisville and Nashville		\$1,124.69	3,720.18	4,844.87
Louisville, New Orleans and Texas Pacific			52.00	52.00
Manhattan			55.00	55.00
Maricopa and Phoenix			445.25	445.25
Maine Central	\$7.20	6.00	182.47	195.67
Mann's Boudoir Car Company			6.00	6.00
Mexican National			601.34	601.34
Mexican National Express			127.69	127.69
Memphis and Charleston			88.79	88.79
Michigan Central		165.73	931.56	1,097.29
Missouri Pacific	17.56	18,983.25	47,903.06	66,903.87
Minneapolis and Saint Louis			215.73	215.73
Monaghan and Murphy (push-car)			480.16	480.16
Mobile and Birmingham			1,022.42	1,022.42
Montana Central			272.49	272.49
Montana Union		42.61	123.74	166.35
Mobile and Ohio		47.30	40.40	87.70
Morgan's Louisiana and Texas	18.46	139.17		157.63
Nashville, Chattanooga and Saint Louis			33.19	33.19
New York, Lake Erie and Western			7,475.04	7,475.04
New York and New England		4.00	531.25	535.25
New York Central and Hudson River	4.97		9,340.32	9,345.29
New York, Ontario and Western			721.98	721.98
New York, Providence and Boston			29.20	29.20
New York, Philadelphia and Norfolk			85.88	85.88
New York, Chicago and St. Louis			919.74	919.74
New York, New Haven and Hartford			482.23	482.23
New Mexico and Arizona	5.55	142.67	4,463.02	4,611.24
Newport News and Mississippi Valley		54.96	281.85	336.81
Northern Pacific Railroad and Express Company		25,507.36	82,186.97	107,694.33
Northern Central .....			.92	.92
Norwich and New York Transportation Company			38.46	38.46
National Express			2.20	2.20
Norfolk and Western			15.58	15.58
North Eastern			2.89	2.89
New Rochelle and Pelham			15.00	15.00
Newport and Wickford			15.55	15.55
Ogdensburgh and Lake Champlain			11.20	11.20
Oregon and California			6.87	6.87
Old Colony Railroad and Steam-boat Company			250.22	250.22
Ohio and Mississippi .....		.64	7,001.74	7,002.38
Ohio, Indiana and Western			16.30	16.30
Oregon Railway and Navigation Company		25.67		25.67
Pacific Express		6.25	292.22	298.47
Pennsylvania Company		1.11	4,184.03	4,185.14
Pennsylvania Railroad		526.66	8,228.66	8,755.32
Philadelphia and Gray's Ferry			50.00	50.00
Philadelphia, Wilmington and Baltimore			268.86	268.86
Philadelphia and Reading			703.63	703.63
Pittsburgh, Cincinnati and St. Louis .....		.85	893.16	894.01
Peoria, Decatur and Evansville			1.00	1.00
Portland and Ogdensburgh			7.50	7.50
Prescott and Arizona Central		43.89	3,227.10	3,270.49
Presidio and Ferries Company			195.00	195.00
Pullman's Palace Car Company		6.00	2,259.28	2,265.28
Raleigh and Gaston			374.64	374.64
Richmond and Danville		141.37	886.17	827.54
Rio Grande			2,617.52	2,617.52
Rome, Watertown and Ogdensburgh		31.87	2,998.46	3,030.33
Richmond, Fredericksburgh and Potomac			16.85	16.85
Southern Pacific (Atlantic system)	421.85	24,119.41	33,044.06	57,585.32
Saint Louis and San Francisco		1,634.06	6,097.77	7,731.83
Saint Louis, Keokuk and Northern			767.23	767.23
Saint John's and Halifax			7.27	7.27
Saint Joe and Grand Island			119.16	119.16
San Francisco and Northern Pacific			1,013.79	1,013.79
San Antonio and Aransas Pass			248.77	248.77
Savannah, Florida and Western		21.85	372.27	394.12
Shenandoah Valley			17.25	17.25
Scioto Valley			45.90	45.90
South Carolina		24.68	35.16	59.84
Star Union Line			788.01	788.01
Southern Express			122.96	122.96
Southern Pacific Coast			27.79	27.79
Southern Kansas	23.88	6,039.15	8,899.81	14,432.84

E.—Abstract of payments during fiscal year 1888 on account of railroad and express companies—Continued.

Company.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Saint Louis, Alton and Terre Haute.....		\$7.50	\$2.56	\$10.15
Saint Louis and Cairo Short Line.....	\$0.65	18.20	11.32	30.17
Saint Paul and Duluth.....			33.04	33.04
South Florida.....			13.78	13.78
Terre Haute and Indianapolis.....			6.26	6.26
Toledo and Ohio Central.....			149.50	149.50
Texas and Pacific.....	4.26	2,895.13	8,359.27	11,258.66
Texas, Santa Fé and Northern.....			870.29	870.29
United States Express.....			69.66	69.66
Utah Central.....		2.00	1,409.40	1,411.40
Vandalia Line.....		9.08	3,514.15	3,523.23
Valley.....			.45	.45
Vicksburg and Meridian.....			2.41	2.41
Wabash.....			2,806.79	2,806.79
Wabash and Western.....		597.06	6,660.53	7,266.58
Wagner Palace Car Company.....			389.85	389.85
Western and Atlantic.....			236.27	236.27
Western Railroad of Alabama.....			28.25	28.25
West Shore (New York Central, lessee).....			5,684.86	5,684.86
Western Express.....			.50	.50
Wells, Fargo & Co.'s Express.....	.65		3,149.42	3,150.07
Wisconsin Central.....		4.33	1,032.65	1,036.98
Wilmington, Columbia and Augusta.....			11.55	11.55
Woodruff Sleeping-Car Company.....			2.00	2.00
Wabash, Saint Louis and Pacific.....		809.16		809.16
Wichita Western.....	279.30			279.30
Various small expenditures, railroad agents, etc.....			389.34	389.34
Total.....	901.42	130,542.40	505,783.85	637,227.73

F.—Abstract of payments during fiscal year 1888, on account of water transportation.

[The following is an abstract of payments during the year on account of water transportation out of the appropriation "Transportation of the Army," upon accounts settled by disbursing quartermasters stationed throughout the country and through the Quartermaster-General's Office and the accounting officers of the Treasury.]

Contractors, steamers, or individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Alabama River Association.....			\$29.56	\$29.56
Aransas steamer.....		\$333.89		333.89
Bair, Thomas.....			920.00	920.00
Baltimore Steam-Packet Company.....			329.75	329.75
Baltimore, Chesapeake and Richmond Steam-boat Company.....			6.00	6.00
Baltimore and Newberne Transportation Company.....			1.50	1.50
Boyd, Alfred.....			30.00	30.00
Boston and Hingham Steam-boat Company.....			95.70	95.70
Boston and Philadelphia Steam-boat Company.....			20.07	20.07
Brown, Charles A.....			6.00	6.00
Cantee, A.....			88.00	88.00
Chapman Derrick and Wrecking Company.....			1,013.00	1,013.00
Clyde, W. P., & Co.....			2,027.57	2,027.57
Central Vermont steamers.....			357.20	357.20
Continental Steam-boat Company.....			4.23	4.23
Coast and River Steam-boat Company.....			6.00	6.00
Corcoran, W. W., Steam-boat Company.....	\$1.00		1.65	2.65
Connolly, J.....			26.55	26.55
Coral, steamer.....			15.54	15.54
Commonwealth, steamer.....			1.00	1.00
Curtis and Parker.....			73.00	73.00
Detroit and Cleveland Steam-boat Company.....			45.56	45.56
Delta Transportation Company.....			63.00	63.00
Decatur Steam-ship Company.....			97.63	97.63
Diamond Jo Line.....			56.30	56.30
Brown, Charles W.....			11.50	11.50
Florina, O. N.....			80.00	80.00
Fogarty & Johnson.....			450.00	450.00

F.—Abstract of payments during fiscal year 1888 on account of water transportation—
Continued.

Contractors, steamers, or individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Fulcher, J.			\$9.00	\$9.00
Glass, M.			556.00	556.00
Golden Rule, steamer.			1.00	1.00
Grand Island Steam-boat Company.			10.50	10.50
Green, T.			35.00	35.00
Harvey, S. M.			9.00	9.00
Humboldt, steamer.			607.83	607.83
Hutt, William.			12.50	12.50
Herman, E. E.	\$10.74	\$18.00		28.74
Hyde, C. E. ....		.75		.75
Inland and Sea-board Coasting Company.			221.48	221.48
Iwaco Steam Navigation Company.			5.81	5.81
James, H. C.			86.00	86.00
Janney, John.			14.17	14.17
Jenkins and Loss.			8.00	8.00
Julia, steamer.			58.50	58.50
Kennebec Steam-boat Company.			56.23	56.23
Kelly, William.		20.12	979.07	999.19
Kerr, James.			35.28	35.28
Kahn, J.			69.70	69.70
Lake Superior Transit Company.			11,530.45	11,530.45
Lake Superior and Lake Michigan Transportation Com- pany.		39.53	666.66	706.19
Louise, steamer. ....			.76	.76
Lowell & Son.			797.04	797.04
Loomis, L. A.			5,934.00	5,934.00
Lyon, H. B.			5,802.68	5,802.68
Mary and Francis, schooner.			50.00	50.00
Mallory, C. H.			2,394.68	2,394.68
Maine Steam-ship Company.			89.45	89.45
Mackinac Transportation Company.			40.19	40.19
Merchants and Miners' Transportation Company.			711.86	711.86
Meester, L. J.			3.00	3.00
Metropolitan Steam-ship Company.			34.58	34.58
Moulton, A.			214.21	214.21
Morgan & Hastings.			56.51	56.51
McKenzie, J. K.		56.00	175.72	231.72
McCabe, T. L.			16.00	16.00
Multnomah, steamer.			86.39	86.39
Mallory, C. H., & Co.		41.70		41.70
Monaghan & Murphy.		11.19		11.19
Messenger, steamer.		1.96		1.96
Nash, C. E.			5.00	5.00
Neptune, steamer.			5.00	5.00
Norwich, New London and Watch Hill Transportation Company.			1.80	1.80
New York and Baltimore Steam Transportation Com- pany.			52.04	52.04
New York, Catskill, and Athens Steam-boat Company.			196.69	196.69
New Haven Steam-boat Company.			157.36	157.36
Newport and Wickford Steam-boat Company.			98.43	98.43
Norwich and New York Transportation Company.			112.05	112.05
Ocean Steam-ship Company.			177.47	177.47
Old Colony Steam-boat Company.			248.02	248.02
Old Dominion Steam-boat Company.			433.97	433.97
Owen, steamer.			270.02	270.02
Pacific Coast Steam-ship Company.			483.74	483.74
People's Line steamers.			14.92	14.92
Providence and Stonington Steam-boat Company.			9.44	9.44
Portland Steam Packet Company.			332.98	332.98
Philadelphia, Richmond and Norfolk Steam-boat Com- pany.			21.48	21.48
Philadelphia, Albany and Troy Line.			87.77	87.77
Pickering, H. S.			12.66	12.66
Plant Steam-ship Line.			10.00	10.00
Potomac Steam-boat Company.			125.98	125.98
Potomac Transportation Company.			2.40	2.40
Pectaw, Bill.			35.00	35.00
Polhamus & Mellen.			915.61	915.61
Power, T. C.		6,351.01	3,652.72	10,004.63
Quill, J. S.			1.80	1.80
Richmond and York River.			11.50	11.50
Roanwick, J.			225.00	225.00
Southern Pacific Company.			6,906.41	6,906.41
Schenck, W. P., steamer.			1.00	1.00
Saint Louis and New Orleans Anchor Line.			3.68	3.68
Saint Louis and Saint Paul Packet Line. ....		.50	62.72	63.22

F.—Abstract of payments during fiscal year 1888, on account of water transportation—
Continued.

Contractors, steamers, or individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Shea, Daniel			\$509.06	\$509.06
Smedley Bros			15.69	15.69
Smith, J. R.		\$9.25		9.25
Scott, W. B.			27.50	27.50
Telephone, steamer			8.02	8.02
Theresa, schooner			30.98	30.98
The Homer Ramadell Transportation Company			84.09	84.09
Tor, C. H., tug			50.00	50.00
U. S. Mail Line			9.00	9.00
Vancouver Transportation Company			232.78	232.78
Van Brunt, F. A.			95.63	95.63
Washington Steam-boat Transfer Company			24.50	24.50
Wakel, Dave			40.00	40.00
Wentworth, J., & Co			13.00	13.00
Willie C., steamer			1.00	1.00
Woodward & Son .....			.76	.76
Various small amounts for ferry tickets, etc.			429.74	429.74
Total	\$11.74	6,884.80	52,473.89	60,370.43

G.—Abstract of payments during fiscal year 1888 on account of wagon transportation.

[The following is an abstract of payments during the year on account of wagon transportation out of the appropriation "Transportation of the Army," upon accounts settled by disbursing quartermasters stationed throughout the country, and through the Quartermaster-General's Office and the accounting officers of the Treasury.]

Contractors, transportation lines, and individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Adams, C. R.			\$1,531.71	\$1,531.71
Abba, P. A.			28.00	28.00
Abern, Thomas			514.98	514.98
Abbott & Kimball			36.00	36.00
Austin, F. L.			687.70	687.70
Anderson, John R.		\$51.22		51.22
Barker, H. L.			250.00	250.00
Bair, Thomas			6,172.89	6,172.89
Borders, John			71.99	71.79
Baker & Johnson			1,213.72	1,213.72
Burbank, Henry			3,096.84	3,096.84
Baden & Johnson			137.50	137.50
Brower, W. H.			45.50	45.50
Burum, P. G., & Co			35.90	35.90
Burns, Thomas			915.91	915.91
Haltzer, H. P.			29.50	29.50
Bond, George			21.00	21.00
Bauer & Ainsworth			551.78	551.78
Booker, R. M.			10.07	10.07
Brown, J. E.			66.50	66.50
Bender, J. A.			117.74	117.74
Burgy, Louis			115.00	115.00
Bogard, D. L.			1,371.72	1,371.72
Baker, G. H.			360.00	360.00
Bear, S. W.			198.82	198.82
Barmore & Elton			118.72	118.72
Berry, George		2,494.68		2,494.68
Barth, Nathan		92.48		92.48
Bowling, Charles		104.00		104.00
Camp Bros			2.50	2.50
Crawford, W. J.			937.52	937.52
Calron, R.			1,085.00	1,085.00
Carroll, John			337.36	337.36
Conry, T. J.			1,817.94	1,817.94
Connolly, J.			363.69	363.69
Cavenaugh, W. E. and G. E.			225.25	225.25
Clarke, J. C.			56.00	56.00
Corcoran, D.			100.00	100.00
Cunningham, S.			5,946.43	5,946.43
Canvel, A. L.			89.40	89.40

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G.—Abstract of payments during fiscal year 1888 on account of wagon transportation—
Continued.

Contractors, transportation lines, and individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Costello, N.			\$3.20	\$3.20
Clark, William			3.00	3.00
Clay, C. E.			8,482.28	8,482.28
Clute, E. R.			322.89	322.89
Caffrey, W. H.			3.00	3.00
Carr, W. H.			823.95	823.95
Cooke, W. H.			2.10	2.10
Cleveland, Larkin		\$29.22		29.22
Dalton, W.			3,015.41	3,015.41
Draney, F. M.			30.00	30.00
Duffy, O.			8,215.51	8,215.51
Day, James			6.00	6.00
Dohse, J. H.			10.00	10.00
Davis, C.			102.00	102.00
Darling, C. D.			58.50	58.50
Edminster, W. S.			2,048.22	2,048.22
Egan, J. P.			2.75	2.75
Eakin, E. C.			3,432.79	3,432.79
Earl, D. W.			5,786.10	5,786.10
Embree, A.			10.00	10.00
Evans, Fred. A.		2.38		2.38
Fortune, Thomas			2,733.40	2,733.40
Fulton, J.			236.87	236.87
Farris, M. R.			608.20	608.20
Fitzgerald, A.			471.59	471.59
Gatewood, George W.			1.50	1.50
Geiger, F.			1.50	1.50
Gurney, J. F.			21.00	21.00
Gregg, E. B.			7.50	7.50
Gibbins, F. M.			1,555.68	1,555.68
Gleim, E. G.			1,825.35	1,825.35
Goldwater, S.			4,617.11	4,617.11
Goldwater, J.			1,132.26	1,132.26
Gresham, J. H.			56.31	56.31
Germain, Frank		145.32	1,854.85	2,000.17
Hoadley, J. F.			1,729.75	1,729.75
Hovey, E.			22.12	22.12
Huppurch, G. J.			225.00	225.00
Hantzell, J. T.			284.00	284.00
Howard, M. W.			7.00	7.00
Hilker, J. N.			10.00	10.00
Hanna & Murray			1,160.48	1,160.48
Hunton, J.			208.00	208.00
Henley, T. B.			2,385.00	2,385.00
Hafstrand Bros.			18.03	18.03
Hatcher, W. H.		293.90		293.90
Johnson, Peter			581.54	581.54
Jewett, G. H.			131.45	131.45
Johnson, C. J.			54.27	54.27
Jordan, Walter B.		104.00		104.00
Kelley, P.			776.95	776.95
Kuhn, J.			1,883.71	1,883.71
Kelly, William			336.11	336.11
Kimball & Son			4.44	4.44
Kyes, Ansel		1,200.64		1,200.64
Kervin, James			46.18	46.18
Lynes, James			2.50	2.50
Lutz, J.			333.54	333.54
Long, John H.			130.00	130.00
Loydd, Isaac			102.42	102.42
Lyon, J. J.			42.50	42.50
Libby, T. & Co.			823.10	823.10
Lafayette, B. F.			320.17	320.17
Loomis, L. A.			735.00	735.00
Linkville and Fort Klamath Wagon Road			26.06	26.06
Lindner & Glenn			542.37	542.37
Luna, E. C.			120.00	120.00
Lavender, A. W.			374.06	374.06
Lambert, E., jr.		244.59		244.59
McCormick, Paul			1,268.89	1,268.89
McCrink, F.			126.10	126.10
McAdams & Duane			14.00	14.00
McCabe, P.			84.00	84.00
Morgan, T.			399.00	399.00
Mullen, P.			1,107.90	1,107.90
McHalton, Hugh			23.40	23.40
Mascarenas, C.			806.40	806.40

G.—Abstract of payments during fiscal year 1888 on account of wagon transportation—
Continued.

Contractors, transportation lines, and individuals.	Paid for services during the year ending June 30—			Total.
	1886.	1887.	1888.	
Mormell, T. B			\$77.12	\$77.12
Moore, W. D			1,538.62	1,538.62
Miller, J. W			323.27	323.27
Monaghan, M			64.75	64.75
Morgan & Hastings			256.99	256.99
Mattson, C. L			60.21	60.21
Mix, J. E			3,356.83	3,356.83
Muggs, J. E			2,073.74	2,073.74
Magor, R. C			4,991.88	4,991.88
McKenzie, J. B			240.00	240.00
McKinnis, C			19.50	19.50
McKenzie, J. K			624.45	624.45
Maginn, B. W			2,362.12	2,362.12
Monaghan & Murphy			537.75	537.75
McNutt, Isaac			5,423.98	5,423.98
Nelson, J. R			1.75	1.75
Nourse, T. A			134.25	134.25
Nicola, H. C			1,637.78	1,637.78
Norton, J. H			8,502.64	8,502.64
Neal, W			11.00	11.00
Nippolt, Andrew			69.50	69.50
Orrick, Robert			1.00	1.00
Osborne, E			146.00	146.00
Oregon Transfer Company			1,447.83	1,447.83
O'Zanne & Co			8.82	8.82
Oliver, Alex. G	\$20.00			20.00
Popper, Max			4,431.84	4,431.84
Patterson, J			5.25	5.25
Palmer, S. C			155.96	155.96
Paddock, R. S			160.78	160.78
Pantenberg, John			156.58	156.58
Pessels, C			1,176.91	1,176.91
Polhamus & Mellon		\$80.15	1,619.96	1,700.11
Power, J. W			6,701.67	6,701.67
Ryan, F			3,014.51	3,014.51
Rennie, J			13,801.33	13,801.33
Rose, B. H			13.75	13.75
Rihn, F. H			45.20	45.20
Rouiller, R. E			12,004.21	12,004.21
Reinken, H. D			650.01	650.01
Rogers, H. A		18.98		18.98
Robertson, Ira			20.00	20.00
Sherwood, F. A			47.02	47.02
Stewart, Charles			3.50	3.50
Springman Bros			1,366.88	1,366.88
Sweeney, M			48.51	48.51
Snow, H. M			45.00	45.00
Seidel & Co			13.00	13.00
Stanton, J			1,548.53	1,548.53
Sloan & Graden			2,723.57	2,723.57
Skinner, J. R			4.80	4.80
Sutton, J			7.50	7.50
Sims, M. G			1.50	1.50
Shepherd, L. B			240.05	240.05
Slavin, J. P			200.00	200.00
Sparks, P. E			2,321.98	2,321.98
Stewart, Madison W		9.41		9.41
Taylor, C. H			50.00	50.00
Tompkins & Quinn			123.97	123.97
Walsh, R. H			6,204.23	6,204.23
Wade, J. N			29.10	29.10
Watson, T. C			103.57	103.57
Wentworth, J. W. & Co			74.00	74.00
Watson, J. D			5,508.45	5,508.45
White, N. B			4,422.68	4,422.68
Winston, Howard		3,318.30		3,318.30
Wood, O. P		132.40		132.40
Wedeles, S. (administrator of Charles Pessels)			5,872.36	5,872.36
Western Railroad of Alabama and Atlanta and West Point .....		.79		.79
Wickeraham, D	451.08			451.08
Young, T. J			109.24	109.24
Zeigler, W. T			32.00	32.00
Zeigler, Isaac			123.96	123.96
Various amounts, including cartage, etc			3,048.03	3,048.03
Total	471.98	8,322.41	206,142.30	214,936.69

H.—Abstract of payments during fiscal year 1888 on account of stage transportation.

[The following is an abstract of payments during the year on account of stage transportation out of the appropriation "Transportation of the Army," upon accounts settled by disbursing quartermasters stationed throughout the country and through the Quartermaster-General's Office and the accounting officers of the Treasury.]

Company or individual.	Paid for services during the year ending June 30—		Total.
	1887.	1888.	
Altres & Biber		\$10.00	\$10.00
Ayer, J. B.		8.00	8.00
Abilene & Ballinger	\$4.50	4.50	9.00
Alger, D.		40.03	40.00
Arizona T.	8.00	114.00	117.00
Bair Bros.		2,362.00	2,362.00
Burns & Bidwell		20.00	20.00
Boyles Bros.		10.50	10.50
Bennett, G. W.		29.50	29.50
Brogan, A.		11.00	11.00
Burbage, W. H.		90.00	90.00
Bismarck and Fort Yates		175.00	175.00
Broadwater, McCulloch & Co.		236.55	236.55
Benjamin, T. P.		22.50	22.50
Barnes, J. L.		20.00	20.00
Bismarck and Pierre		24.00	24.00
Buford and Glendive (J. L. Burns)	67.00		67.00
Bragaw & Co.	35.50		35.50
Culverhouse, Jerry		24.00	24.00
Cloverdale and Ukiah		33.00	33.00
California, Nevada and Oregon		20.00	20.00
Collins, J. N.		167.75	167.75
Carter, John		1.50	1.50
Chambers, W. A.		3.00	3.00
Clumpett, B. F.		12.00	12.00
Coffin, A. L.		53.00	53.00
Cheyenne and Black Hills		509.32	509.32
Clark, John		2.00	2.00
Curtis, C.		20.00	20.00
Cheyenne and Northern		7.00	7.00
Collins, J.		2.00	2.00
California, Oregon and Idaho	2.00		2.00
Clotfelter & Booth	2.50		2.50
Dolan, N.		4.00	4.00
Davidson, A. J.		4.00	4.00
Frandsen, George		370.00	370.00
Frandsen, H.		10.00	10.00
Fort Thomas and Boise		25.00	25.00
Fort Thomas and San Carlos		35.00	35.00
Faunen, T. C.		12.00	12.00
Fort Buford and Glendive		30.00	30.00
Goldwater, J.		40.00	40.00
Green, J. S.		266.50	266.50
Glendive and Buford	10.00		10.00
Great Western Stage, Mail and Express	10.50		10.50
Harris & Brooks		35.00	35.00
Handy, F. C.		60.00	60.00
Hoadley, J. F.		50.00	50.00
Higbee, M.		4.80	4.80
Hickey, M. J.		5.00	5.00
Hopkins, R. S.		33.00	33.00
Hutt, William		15.00	15.00
Holbrook and Apache		141.00	141.00
Harris, J. H.		42.00	42.00
Helena and Benton		584.50	584.50
Henderson & Hunter		4.00	4.00
Hopkins, R. S.		10.00	10.00
Junction, Fort Maginnis and Maiden	8.25	165.00	168.25
Jensen, C. L.	6.00		6.00
Kelly, William		143.78	143.78
Keenan, E. E.		35.00	35.00
Loydd, Isaac		3.00	3.00
Lemmon, M.		7.50	7.50
Laughlin, T. O.		21.00	21.00
Moulder, W. P.		20.00	20.00
McAdams & Duane		7.00	7.00
Muscogee and Fort Gibson		12.00	12.00
Monaghan, P. F.		79.87	79.87
Mount Hood and Barlow		58.75	58.75
Manning		5.00	5.00

H.—Abstract of payments during fiscal year 1888 on account of stage transportation—
Continued.

Company or individual.	Paid for services during the year ending June 30—		Total.
	1887.	1888.	
Maylor		\$25.00	\$25.00
Mantey, D		8.00	8.00
Maloney, L		9.75	9.75
Marion, E		5.00	5.00
Montana	\$85.00	256.85	341.85
Missouri		13.30	13.30
Missouri River Stage and Transportation Company	7.75		7.75
Nevada		306.00	306.00
Nutter, C. E		13.00	13.00
Nelson, C. P		162.80	162.80
Nasworth, Johnson & Rose	3.00	111.00	114.00
Norton, J. H		178.45	178.45
Norton & Stewart		50.00	50.00
Northwestern Express and Transportation Company	696.00	1,630.86	2,626.86
Northwestern	23.24	20.00	43.24
Overland		47.00	47.00
Olsen, Sevan		40.00	40.00
Olsen, Erastus		65.00	65.00
Ozanne & Co		221.80	221.80
Oregon		152.34	152.34
Overland	3.00		3.00
Piscadero and Santa Cruz		7.50	7.50
Presidio Company		146.50	146.50
Preston Bros		7.00	7.00
Pomeroy, S. W		701.00	701.00
Pascoe, T. A		20.00	20.00
Pomeroy Bros		69.75	69.75
Prescott and Verde		12.00	12.00
Phoenix and McDowell		21.00	21.00
Palmer, F		5.00	5.00
Reno and Bidwell		1,374.40	1,374.40
Revis and Bidwell		230.00	230.00
Rice and Musser		423.00	423.00
Ray, E		512.40	512.40
Rawlins & White		65.00	65.00
Reinken, H. D		13.00	13.00
Russell, C. E		6.00	6.00
Rogers, James		3.00	3.00
Root and Negus		3.00	3.00
Root and Wheeler		15.00	15.00
Smith & White		45.00	45.00
Smith & Ellis		37.00	37.00
Schultz		4.00	4.00
Satterwhite, M		43.00	43.00
San Juan		1.50	1.50
Soule, G. A		56.00	56.00
Spokane Falls and Fort Spokane		607.50	607.50
Smith		9.00	9.00
Spokane Falls and Colville		35.00	35.00
Selist		2.50	2.50
Sholl and Hunt		24.00	24.00
Smiths	9.00		9.00
Sales and Herman	10.00		10.00
Trachey, E		6.00	6.00
Wade, J. J., & Co		6.00	6.00
Wright, M. B		18.00	18.00
Webb, H. L		171.40	171.40
Wade & Britton		5.00	5.00
Williamson, L. P		327.72	327.72
Wyoming	16.50	2,210.70	2,227.20
Willis Bros. & Co		480.00	480.00
Wood, B. H		6.00	6.00
Wakefield, G. W	32.00	36.25	68.25
Western		7.50	7.50
Wheeler, R. H		2.00	2.00
Webster and Sisseton		2.00	2.00
Western Mail and Stage Company		34.65	34.65
Ukiah and Hydeaville		24.50	24.50
Vale & Burns		15.00	15.00
Zimmerman, W		4.00	4.00
Various small amounts for car tickets, etc		949.17	949.17
Total	1,029.74	18,791.91	19,821.65

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, in the divisions, departments, general depots, independent posts, and recruiting depots of the Army, on what duty employed, their grade and monthly pay, and the appropriation from which paid, as reported by officers of the department on their reports of persons and articles hired, for June, 1888.

DIVISION OF THE ATLANTIC AND DEPARTMENT OF THE EAST.

Posts.	Incidental expenses.									
	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Clerk, \$60.	Copyist, \$60.	Draughtsman, \$133.33.	Interpreter, \$100.	Janitor, \$45.
Headquarters, Governor's Island, N. Y.	4	4	1					1		1
Baltimore, Md.	1				1					1
Buffalo, N. Y.	1			1	1					
Fort Monroe, Va.		1								
New Orleans, La.	1		1	1						
Louisville, Ky.	1						1			
Boston, Mass.	1			1						
Atlanta, Ga.	1								1	
Mount Vernon Barracks, Ala.						1				
Fort Porter, N. Y.					1					
Near Newport, Ky.										
Total	10	5	2	3	2	1	1	1	1	1

Posts.	Incidental expenses.								Barracks and quarters.	
	Laborer, \$30.	Messenger, \$75.	Messenger, \$60.	Messengers, \$50.	Messengers, \$45.	Messenger, \$25.	Store-keeper, \$38.	Telegraph operator, \$90.	Watchmen, \$45.	Store-keeper, \$75.
Headquarters, Governor's Island, N. Y.		1		1		1		1	1	
Baltimore, Md.			1	1						2
Buffalo, N. Y.							1			
Fort Monroe, Va.										
New Orleans, La.				1	1				1	
Boston, Mass.				1					1	
Atlanta, Ga.				1						
Near Newport, Ky.					1					
Washington Barracks, D. C.	1									
Total	1	1	1	4	2	1	1	1	2	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE ATLANTIC AND DEPARTMENT OF THE EAST—Continued.

Posts.	Army transportation.										
	Blacksmith, \$70.	Blacksmiths, \$60.	Blacksmith, \$35.	Engineer, \$60.	Engineers, \$75.	Engineers, \$60.	Mason, \$60.	Masons' helper, \$35.	Packer, \$45.	Plumber, \$80.	Plumber, \$60.
Headquarters, Governor's Island, N. Y.	1	1				1	1	1		1	1
Fort Monroe, Va.	1										
New Orleans, La.					1				1		
Washington Barracks, D. C.						1					
Fort Niagara, N. Y.						1					
Fort Wayne, Mich.						1					
Madison Barracks, N. Y.						1					
Jackson Barracks, La.				1							
Fort Wadsworth, N. Y.						1					
Fort Adams, R. I.					1						
Fort Schuyler, N. Y.						1					
Fort Hamilton, N. Y.					1						
Fort Myer, Va.	1					1					
Saint Francis Barracks, Fla.											1
Total	1	2	1	1	3	7	1	1	1	1	1

Posts.	Army transportation.									
	Scavenger, \$20.	Superintendents of transportation, \$65.	Teamsters, \$30.	Transportation agents, \$20.	Wheelwright, \$60.	Pilot, \$70.	Engineer, \$75.	Engineer, \$80.	Pilot, \$60.	Assistant engineer, \$50.
Headquarters, Governor's Island, N. Y.		1	5							
Fort Monroe, Va.					1					1
New Orleans, La.			1							1
Mount Vernon Barracks, Ala.				1						1
Fort Barrancas, Fla.	1							1	1	
Fort Adams, R. I.						1	1			
Total	1	1	6	1	1	1	1	1	1	1

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DIVISION OF THE ATLANTIC AND DEPARTMENT OF THE EAST—Continued.

Posts.	Army transportation.										
	Steamer Atlantic.							Steamer Resolute.			
	Deck hands, \$45.	Engineer, \$75.	Engineer, \$85.	Fireman, \$55.	Fireman, \$45.	Master, \$110.	Pilot, \$95.	Deck hands, \$40.	Engineer, \$70.	Fireman, \$50.	Master, \$110.
Headquarters, Governor's Island, N. Y.	3	1	1	1	1	1	1	.....^s	.....	.....	.....
Boston, Mass. ....	.....	.....	.....	.....	.....	.....	.....	.....^s	.....	.....	.....
Total	3	1	1	1	1	1	1	.....^s	.....	.....	.....

DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA.

[illegible]

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA—Continued.

Posts.	Army transportation.														
	Transportation agent, \$50.	Transportation agent, \$40.	Watchman, \$15.	Wheelwright, \$90.	Teamster, \$70.	Dock hand, \$75.	Draughtsman, \$100.	Hostler, \$65.	Mason, \$50.	Steamer McDowell.					
										Captain, \$133.33.	Engineer, \$125.	Firemen, \$80.	Matr, \$40.	Scannin, \$70.	Watchman, \$70.
Headquarters, San Francisco, Cal.....	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1
Presidio of San Francisco, Cal.....	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1
Total.....	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1

DEPARTMENT OF ARIZONA.

Posts.	Regular supplies.		Incidental expenses.										
	Forage masters, \$500.	Laborers, \$50.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Interpreters, \$75.	Interpreter, \$10.	Janitor, \$20.	Laborers, \$30.	Messengers, \$60.	Messenger, \$40.	Messenger, \$30.
Headquarters, Los Angeles, Cal.		2	1	3	2	1					12		
Whipple Barracks, Ariz.	1												
San Carlos, Ariz.	1						1						
Fort Apache, Ariz.							1						
Fort Bowie, Ariz.	1												
Tucson, Ariz.			1			1							1
Fort Mojave, Ariz.								1	1				
Fort Huachuca, Ariz.	1												
Fort Lowell, Ariz.	1												
Fort Thomas, Ariz.	1												
Fort Grant, Ariz.	1												
Fort McDowell, Ariz.	1												
Fort Verde, Ariz.	1												
Santa Fé, N. Mex.	1									2		1	
Fort Wingate, N. Mex.	1						1						
Fort Bayard, N. Mex.	1		1	1	1								
Fort Stanton, N. Mex.	1												
Fort Union, N. Mex.	1												
Total.	15	2	3	4	3	2	3	1	1	2	2	1	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF ARIZONA—Continued.

Posts.	Incidental expenses.			Barracks and quarters: Sawyer, \$60.	Army transportation.							
	Watchman, \$60.	Watchman, \$40.	Watchman, \$30.		Blacksmiths, \$80.	Blacksmiths, \$60.	Engineers, \$100.	Engineers, \$90.	Engineer, \$85.	Engineers, \$80.	Engineers, \$75.	Hostler, \$50.
Headquarters, Los Angeles, Cal	1											
Whipple Barracks, Ariz					1	1						1
San Carlos, Ariz					1							
Fort Apache, Ariz					1		1					
Fort Bowie, Ariz					1							
Fort Mojave, Ariz						1						
Fort Huachuca, Ariz					1							
Fort Lowell, Ariz					1					1		
Fort Thomas, Ariz					1					1		
Fort Grant, Ariz					1							
Fort McDowell, Ariz					1		1					
Fort Verde, Ariz						1						
Santa Fé, N. Mex		1	1									
Fort Wingate, N. Mex					1						1	
Fort Bayard, N. Mex				1	1			1				
Fort Stanton, N. Mex					1						1	
Fort Union, N. Mex												
Total	1	1	1	1	9	4	3	2	1	2	2	1

Posts.	Army transportation.									
	Laborers, \$50.	Machinist, \$75.	Packers, \$10.	Superintendent of transportation, \$100.	Teamsters, \$50.	Teamsters, \$40.	Teamsters, \$30.	Transportation agents, \$100.	Transportation agents, \$50.	Transportation agent, \$30.
Headquarters, Los Angeles, Cal	4				4			2	4	
Whipple Barracks, Ariz				1						
San Carlos, Ariz						2				
Fort Apache, Ariz						2				
Fort Bowie, Ariz								1	1	1
Tucson, Ariz										
Fort Huachuca, Ariz						4				
Fort Lowell, Ariz						2				
Fort Thomas, Ariz						1				
Fort Grant, Ariz						3				
Fort McDowell, Ariz						2				
Fort Verde, Ariz						1				
Santa Fé, N. Mex							2	1	2	
Fort Wingate, N. Mex			2				3			
Fort Bayard, N. Mex							2			
Fort Stanton, N. Mex							2			
Fort Union, N. Mex		1					2			
Total	4	1	2	1	4	17	11	4	7	1

[illegible]

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DEPARTMENT OF THE MISSOURI.

Posts.	Regular supplies.					Incidental expenses.							
	Engineer, \$95.	Engineer, \$85.	Fireman, \$40.	Forge-masters, \$75.	Foreman, \$100.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerk, \$83.33.	Clerk, \$60.	Guide, \$100.	Horse-shoer, \$70.
Headquarters and depot, Fort Leavenworth, Kans.	1	1	1			2	2	2	2	1			1
Military prison, Fort Leavenworth, Kans.				1	1	1	2	2	2				
Denver, Colo.				1		1							
Fort Reno, Ind. T.				1								1	
Fort Supply, Ind. T.				1									
Fort Sill, Ind. T.				1									
Fort Elliott, Tex.				1			1				1		
Fort Riley, Kans.													
Total.	1	1	1	5	1	4	4	3	2	1	1	1	1

Posts.	Incidental expenses.									Army transportation.			
	Interpreters, \$100.	Veterinary surgeon, \$125.	Janitor, \$15.	Laborers, \$30.	Messengers, \$15.	Messenger, \$40.	Telegraph operator, \$105.	Watchmen, \$40.	Store-keeper, \$100.	Barracks and quarters: Carpenters, \$60.	Blacksmiths, \$60.	Corral-master, \$75.	Engineer, \$100.
Headquarters and depot, Fort Leavenworth, Kans.		1	1	3	2		1	5	1		2	1	1
Denver, Colo.						1						1	1
Fort Reno, Ind. T.	1											1	
Fort Supply, Ind. T.												1	
Fort Sill, Ind. T.	1											1	
Fort Elliott, Tex.												1	
Fort Riley, Kans.												1	
Fort Crawford, Colo.												1	
Fort Gibson, Ind. T.												1	
Fort Lyon, Colo.												1	
Fort Lewis, Colo.												1	
Total.	2	1	1	3	2	1	1	5	1	2	10	1	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF THE MISSOURI—Continued.

Posts.	Army transportation.										
	Engineer, \$80.	Engineers, \$60.	Engineer, \$40.	Foreman, \$100.	Hostler, \$30.	Packer, \$70.	Packer, \$50.	Packers, \$40.	Saddlers, \$60.	Teamsters, \$40.	Teamsters, \$30.
Headquarters and depot, Fort Leavenworth, Kans.			1		1	1		3		1	13
Military prison, Fort Leavenworth, Kans.				1							
Denver, Colo.		1							1		10
Fort Reno, Ind. T.		1									9
Fort Supply, Ind. T.		1									3
Fort Sill, Ind. T.		1									3
Fort Elliott, Tex.											3
Fort Riley, Kans.	1										1
Fort Crawford, Colo.		1									1
Fort Gibson, Ind. T.		1									1
Fort Lyon, Colo.		1									1
Fort Lewis, Colo.		1					1	1	1		3
Fort Hays, Kans.											3
Total	1	6	1	1	1	1	1	4	3	2	63

Posts.	Army transportation.								Clothing and equipage.	
	Transportation agent, \$120.	Transportation agent, \$116.66.	Transportation agents, \$100.	Transportation agent, \$75.	Transportation agent, \$60.	Warehouse man, \$40.	Wagon-master, \$30.	Wheelwrights, \$40.	Yard-master, \$50.	Train master, \$60.
Headquarters and depot, Fort Leavenworth, Kans.	1	1	5		1	1			1	
Military prison, Fort Leavenworth, Kans.										
Denver, Colo.			1							
Fort Reno, Ind. T.							1	1		
Fort Supply, Ind. T.							1	1		
Fort Sill, Ind. T.							1	1	1	
Fort Elliott, Tex.							1	1		
Fort Lewis, Colo.			1				1	1		
Total	1	1	6	1	1	1	3	5	1	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF DAKOTA.

Posts.	Regular supplies.			Incidental expenses.											
	Engineer, \$75.	Forage-masters, \$75.	Forage-masters, \$60.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$110.00.	Clerks, \$100.	Clerks, \$83.33.	Clerk, \$75.	Interpreters, \$80.	Interpreters, \$50.	Janitor, \$60.	Messengers, \$50.	Scavenger, \$60.	Scout, \$125.
Headquarters, Saint Paul, Minn.	1			4	2	3	1	1	1			1	2		
Fort Snelling, Minn.		1					1								
Fort Yates, Dak.											1				
Helena, Mont.				1									1		
Fort Custer, Mont.							1			1					1
Fort Shaw, Mont.								1							
Fort Buford, Dak.			1												
Fort Assiniboine, Mont.		1						1		1				1	
Fort Keogh, Mont.		1					1				1				
Fort Meade, Dak.		1													
Fort Maginnis, Mont.		1						1							
Fort Missoula, Mont.															
Total	1	4	2	5	2	3	4	4	1	2	2	1	3	1	1

Posts.	Incidental expenses.				Barracks and quarters.			Army transportation.							
	Scrubber, \$35.	Scrubber, \$10.	Watchmen, \$35.	Scout, \$60.	Elevator man, \$40.	Engineer, \$100.	Engineers, \$83.33.	Engineer, \$75.	Fireman, \$45.	Sawyer, \$60.	Blacksmiths, \$33.33.	Blacksmiths, \$80.	Blacksmiths, \$75.	Blacksmiths, \$60.	Blacksmiths, \$50.
Headquarters, Saint Paul, Minn.	1	1			1	1			1					1	
Fort Snelling, Minn.			2								1			1	
Helena, Mont.															
Fort Custer, Mont.															
Fort Shaw, Mont.				1				1		1			1		
Fort Buford, Dak.												1			
Fort Assiniboine, Mont.											1				
Fort Keogh, Mont.														1	
Fort Meade, Dak.														1	
Fort A. Lincoln, Dak.													1		
Fort Maginnis, Mont.							1				1				
Fort Missoula, Mont.														1	
Fort Randall, Dak.							1								
Fort Totten, Dak.														1	
Fort Sisseton, Dak.															1
Fort Pembina, Dak.														1	
Fort Sully, Dak.													1		
Poplar River Camp, Mont.														1	
Total	1	1	3	1	1	1	2	1	1	1	3	2	3	8	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF DAKOTA—Continued.

Posts.	Army transportation.														
	Engineer, \$116.66.	Engineers, \$100.	Engineer, \$90.	Engineers, \$83.33.	Engineer, \$75.	Engineers, \$60.	Engineer, \$55.	Hostlers, \$40.	Packer, \$75.	Packer, \$60.	Packer, \$50.	Packer, \$45.	Saddlers, \$60.	Superintendent, \$100.	Teamsters, \$45.
Headquarters, Saint Paul, Minn.	1	..	..	..	..	1	1	2	..	..	1	1	..	..	2
Fort Snelling, Minn.	1	..	..	..	..	..	..
Fort Custer, Mont.	1	..	..	..	..	..	..	1	..	..	..	..	1	..
Fort Buford, Dak.	1	..	..	..	..	..
Fort Assiniboine, Mont.	1	..	..	..	..	..	..	..	1	..	..	1	..	..
Fort Keogh, Mont.	1	..	..	..	..	..	..	1	..	..
Fort Meade, Dak.	1	..	..	..	..	..	..	..	..	..
Fort Missoula, Mont.	1	1	..	..	..	..	..	..	..	..	..	1	..
Fort Randall, Dak.	1	1	..	..	..	..	..	..	..	..	..	..	..
Fort Pembina, Dak.
Total.....	1	2	1	2	1	2	1	2	1	1	1	1	3	1	2

Posts.	Army transportation.														
	Teamsters, \$40.	Teamsters, \$35.	Teamsters, \$30.	Train-masters, \$75.	Train-masters, \$60.	Train-masters, \$50.	Transportation agents, \$133.31.	Transportation agent, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.	Transportation agents, \$75.	Transportation agent, \$40.	Wheelwrights, \$83.33.	Wheelwrights, \$75.	Wheelwrights, \$60.
Headquarters, Saint Paul, Minn.	7	..	..	..	..	3	..	1	..	2	1	..	..	..
Fort Snelling, Minn.	1	..	..
Fort Yates, Dak.	7	..	..	..	..	..	..	1	..	..	..	..	1
Fort Custer, Mont.	11	..	1	..	..	..	..	1	..	..	..	1	..	..
Fort Shaw, Mont.	5	..	..	..	1	..	..	..	..	..	..	..	..	..
Fort Buford, Dak.	8	..	1	..	..	..	..	1	..	..	..	1	..
Fort Assiniboine, Mont.	1
Fort Keogh, Mont.	7	..	..	..	..	..	..	..	..	..	1	..	..
Fort Meade, Dak.	10	..	1	..	..	..	1	..	..	..	..	..	1
Fort A. Lincoln, Dak.	2	..	..	..	..	1	..	..	..	..	..	..	1
Fort Maginnis, Mont.	4	..	..	..	..	..	..	..	..	..	..	1	..
Fort Missoula, Mont.	6	..	..	1	..	..	..	..	..	..	..	..	1	..
Fort Randall, Dak.	4	..	..	..	..	..	..	..	..	..	..	1	1
Fort Totten, Dak.	3	..	..	..	..	..	..	..	..	..	..	..	..
Fort Sisseton, Dak.	2	..	..	..	..	..	..	..	..	..	..	..	..
Fort Pembina, Dak.	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Fort Sully, Dak.	7	..	..	..	..	..	..	..	..	..	..	..	..
Poplar River Camp, Mont.	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Fort Bennett, Dak.	2	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	19	37	44	1	2	2	3	1	3	2	2	1	3	3	5

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF THE PLATTE.

Posts.	Regular supplies.					Incidental expenses.						
	Agent, \$100.	Forage-master, \$100.	Forage-master, \$70.	Forage-master, \$60.	Tinner, \$50.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Draughtsman, \$133.33.	Guide, \$150.
Headquarters, fort, and depot, Omaha, Nebr.	1	1	1	1	1	3	5	1	1	1	1	1
Fort McKinney, Wyo.			1	1	1	1		1	1			1
Cheyenne Depot, Wyo.												
Fort Robinson, Nebr.												1
Total.	1	1	1	1	1	4	5	2	2	1	1	1

Posts.	Incidental expenses.								Barracks and quarters.	
	Interpreter, \$75.	Interpreter, \$60.	Janitor, \$50.	Laborers, \$35.	Messenger, \$75.	Messenger, \$60.	Messenger, \$50.	Porter, \$50.	Watchman, \$45.	Watchmen, \$35.
Headquarters, fort, and depot, Omaha, Nebr.			1	11	1	1		1	1	1
Cheyenne Depot, Wyo.		1		2			1			2
Fort Washakie, Wyo.										1
Fort Du Chesaue, Utah.	1									
Fort D. A. Russell, Wyo.										
Total.	1	1	1	13	1	1	1	1	1	5

Posts.	Army transportation.										
	Blacksmiths, \$80.	Blacksmiths, \$75.	Blacksmith, \$70.	Blacksmith, \$50.	Cargadores, \$60.	Engineers, \$83.33.	Engineer, \$40.	Hostler, \$40.	Hostler, \$35.	Packer, \$60.	Packers, \$50.
Headquarters, fort, and depot, Omaha, Nebr.	1	1	1	1		1			1	1	
Fort McKinney, Wyo.		1				1					
Cheyenne Depot, Wyo.	1	1			2	1	1	1			
Fort Robinson, Nebr.		1				1					
Fort Washakie, Wyo.		1				1					
Fort Du Chesaue, Utah.		1									
Fort Laramie, Wyo.		1				1					
Fort Douglas, Utah.		1									
Fort Bridger, Wyo.		1									
Fort Sidney, Nebr.		1									
Fort Niobrara, Nebr.		1				1					
Camp Sheridan, Nebr.		1									
Total.	2	11	1	1	2	6	1	1	1	1	8

Posts.	Army transportation.										
	Packers, \$40.	Packer, chief, \$133.33.	Packmasters, \$100.								
Headquarters, fort, and depot, Omaha, Nebr.											
Fort McKinney, Wyo.											
Cheyenne Depot, Wyo.											
Fort Robinson, Nebr.											
Fort Washakie, Wyo.											
Fort Du Chesaue, Utah.											
Fort Laramie, Wyo.											
Fort Douglas, Utah.											
Fort Bridger, Wyo.											
Fort Sidney, Nebr.											
Fort Niobrara, Nebr.											
Camp Sheridan, Nebr.											
Total.	2	1	2								

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF THE PLATTE—Continued.

Posts.	Army transportation.										
	Painter, \$75.	Painter, \$50.	Saddler, \$80.	Saddler, \$75.	Teamsters, \$45.	Teamsters, \$40.	Teamsters, \$35.	Transportation agents, \$133.33.	Transportation agents, \$116.66.	Transportation agents, \$100.	Transportation agents, \$83.33.
Headquarters, fort, and depot, Omaha, Nebr.....	1		1		3	4	4	2	2	6	1
Fort McKinney, Wyo.....							1				1
Cheyenne Depot, Wyo.....	1		1		4	3	1				
Fort Robinson, Nebr.....						4	1				1
Fort Washakie, Wyo.....						3	1				1
Fort Du Chesne, Utah.....						1	1				1
Fort Laramie, Wyo.....						1	1				1
Fort Douglas, Utah.....						1	1				1
Fort Bridger, Wyo.....						1	1				1
Fort Sidney, Nebr.....							1				1
Fort Niobrara, Nebr.....							1				1
Ogden, Utah.....							1			1	
Camp Sheridan, Wyo.....							4				
Total.....	1	1	1	1	3	8	24	4	2	6	2

DEPARTMENT OF TEXAS.

Posts.	Regular supplies.					Incidental expenses.						
	Engineer, \$85.	Fireman, \$35.	Forage-masters, \$75.	Forage-masters, \$60.	Tinner, \$30.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerk, \$83.33.	Copyist, \$50.	Custodian, \$75.
Headquarters and depot, San Antonio, Tex.....	1	1		1	1	2	2	2	2	1	1	1
Fort Clark, Tex.....			1									
Fort Concho, Tex.....				1								
Fort Davis, Tex.....			1									
Fort Ringgold, Tex.....				1								
Fort McIntosh, Tex.....				1								
Total.....	1	1	2	4	1	2	2	2	3	1	1	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

DEPARTMENT OF TEXAS—Continued.

Posts.	Incidental expenses.						Barracks and quarters.		Army transportation.					
	Janitor, \$50.	Laborer, \$30.	Messenger, \$50.	Messenger, \$45.	Watchmen, \$40.	Store-keeper, \$100.	Carpenter, \$70.	Carpenter, \$60.	Blacksmith, \$70.	Blacksmith, \$60.	Blacksmiths, \$50.70.	Blacksmiths, \$50.50.	Corral-master, \$75.	Engineers, \$50.70.
Headquarters and depot, San Antonio, Tex.	1	12	2	1	6	1	1	1	1	1	1	2	1	...
Fort Clark, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Concho, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Davis, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Ringgold, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort McIntosh, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Brown, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Hancock, Tex.	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Total	1	12	2	1	6	1	1	1	1	1	7	2	1	6

Post.	Army transportation.													
	Hostlers, \$25.35.	Packers, \$33.80.	Painter, \$65.70.	Saddlers, \$60.	Scavengers, \$40.	Teamsters, \$25.35.	Transportation agent, \$116.66.	Transportation agent, \$94.57.	Transportation agent, \$84.50.	Transportation agent, \$50.	Wagon-masters, \$50.70.	Wheelwright, \$71.	Wheelwrights, \$50.70.	Yard master, \$50.
Headquarters and depot, San Antonio, Tex.	3	4	1	2	2	11	1	1	2	1	...	1	1	1
Fort Clark, Tex.	1	...	...	...
Fort Davis, Tex.	1	...	...	...
Fort Ringgold, Tex.
Fort McIntosh, Tex.	1	...	...	...	1	...
Fort Brown, Tex.
Fort Hancock, Tex.	1	...	...	...	...	...	...	1	...
Camp Del Rio, Tex.	1	...	...	...	...	...	...	...	...
Camp Peña Colorado, Tex.	1	...	...	...	...	...	...	1	...
Total	3	4	1	2	2	24	1	1	3	1	2	1	5	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1823, AND SPECIAL ORDER 172, A. G. O., 1884.

Depots.	Regular supplies.				Incidental expenses.									
	Coal-heaver, \$65.	Engineer, \$100.	Engineer, \$50.	Forage-master, \$100.	Clerks, \$150.	Clerks, \$133.33.	Clerks, \$116.66.	Clerks, \$100.	Clerks, \$83.33.	Clerk, \$75.	Copyists, \$75.	Copyist, \$65.	Copyists, \$60.	Copyist, \$36.
New York, N. Y.	1				3	4	3	3			1			
Philadelphia, Pa.					5	3	3	1			1			
Washington, D. C.		1		1	12	12	12	12	12		1			
Jeffersonville, Ind.		1	1		12	12	12	12	12				12	
San Francisco, Cal.					12	12	1	1	1		1	1		
Saint Louis, Mo.					3				12	1	1	1		1
Total	1	1	1	1	18	10	9	6	7	1	4	1	2	1

Depots.	Incidental expenses.									
	Gardener, \$50.	Inspector, \$150.	Janitor, \$65.	Laborers, \$75.	Laborer, \$45.	Laborers, \$40.	Laborer, \$30.	Messengers, \$75.	Messengers, \$65.	Messengers, \$60.
New York, N. Y.								3		1
Philadelphia, Pa.						3			1	1
Washington, D. C.	1								1	
Jeffersonville, Ind.		1	1	3			1			
San Francisco, Cal.		1			1				1	
Saint Louis, Mo.										
Total	1	1	1	3	1	3	1	3	2	3

Depots.	Incidental expenses.										Army transportation.		
	Store-keepers, \$116.66.	Store-keeper, \$83.33.	Superintendents, \$150.	Veterinary surgeon, \$100.	Watchmen, \$75.	Watchmen, \$60.	Watchman, \$52.	Watchman, \$50.	Watchmen, \$40.	Telephone operator, \$75.	Cavalry and artillery horses: Inspector, \$150. Barracks and quarters: Carpenter, \$60.	Carpenter, \$65.	Carpenter, \$60.
New York, N. Y.	1				2	1		1				1	
Washington, D. C.	1		1	1		1				1			1
Jeffersonville, Ind.		1	1				1						
San Francisco, Cal.									6	1			
Saint Louis, Mo.													
Total	2	1	3	1	2	2	1	1	6	1	1	1	1

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1823, AND SPECIAL ORDER 172, A. G. O., 1884—Continued.

Depots.	Army transportation.									
	Engineer, \$100.	Engineer, \$75.	Fireman, \$40.	Foreman of stables, \$70.	Hostler, \$60.	Hostler, \$55.	Hostlers, \$45.	Hostlers, \$40.	Inspector, \$100.	Marker, \$40.
New York, N. Y.	1				1					
Washington, D. C.				1		1	2	5		
Jeffersonville, Ind.		1	1						1	1
Saint Louis, Mo.									1	1
Total	1	1	1	1	1	1	2	5	1	1

Depots.	Army transportation.									
	Saddler, \$75.	Shipper, \$116.66.	Shippers, \$83.33.	Drayman, \$70.	Stableman, \$65.	Superintendent, \$133.33.	Superintendent, \$100.	Superintendent, \$85.	Superintendent, \$70.	Superintendent, \$50.
New York, N. Y.				1			1	1	1	1
Philadelphia, Pa.		1	2		1					
Washington, D. C.						1				
Jeffersonville, Ind.	1									
San Francisco, Cal.									1	
Saint Louis, Mo.										
Total	1	1	2	1	1	1	1	1	1	1

Depots.	Army transportation.							Clothing and equipage.				
	Teamsters, \$40.	Transportation agents, \$133.33.	Transportation agents, \$116.66.	Transportation agent, \$100.	Transportation agent, \$83.33.	Weight master, \$40.	Teamster, \$70.	Carpenters, \$75.	Carpenter, \$70.	Carpenters, \$65.	Clerks, \$150.	Clerks, \$133.33.
New York, N. Y.		1	1		1							
Philadelphia, Pa.	9							1				1
Washington, D. C.	4								1	1	1	1
Jeffersonville, Ind.		1		1		1	1					
San Francisco, Cal.		1	2						1			
Saint Louis, Mo.											1	1
Total	13	3	3	1	1	1	1	2	1	2	2	2

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

GENERAL DEPOTS, AS PROVIDED BY ARMY REGULATIONS, 1823, AND SPECIAL ORDER 172, A. G. O., 1884—Continued.

Depots.	Clothing and equipage.									
	Clerks, \$83.33.	Clerks, \$75.	Cutters, \$78.	Engineer, \$100.	Fireman, \$80.	Folder, \$40.	Folders, \$35.	Foreman of packers, \$80.	Foreman of packers, \$80.	Inspectors, \$150.
Philadelphia, Pa.	1	1		1	1	1		1	1	
Jeffersonville, Ind.	1	1	5				5	1	1	
San Francisco, Cal.	1	1						1	1	
Saint Louis, Mo.										
Total	3	2	5	1	1	1	5	1	1	1

Depots.	Clothing and equipage.									
	Laborers, \$54.	Laborers, \$45.50	Marker, 75.	Marker, \$40.	Master baler, \$75.	Master packer, \$75.	Packer, \$80.	Packer, \$75.	Packers, \$70.	Packers, \$60.
Philadelphia, Pa.	16		1		1	1			5	5
Jeffersonville, Ind.		2		1			1		2	5
Saint Louis, Mo.										
Total	16	2	1	1	1	1	1	1	2	11

Depots.	Clothing and equipage.									
	Painter, \$60.	Saddlemaker, \$75.	Store-keeper, \$100.	Trimmer, \$75	Trimmer, \$60.	Trimmer, \$45.	Warehouse men, \$133.33.	Warehouse man, \$100.	Warehouse man, \$80.	Watchman, \$85.
Philadelphia, Pa.	1			1	1		1			1
Jeffersonville, Ind.	1	1				1	1	1		3
San Francisco, Cal.										
Saint Louis, Mo.								1		
Total	1	1	1	1	1	1	2	1	1	3

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INDEPENDENT POSTS.

RECRUITING DEPOTS.

[illegible]

REPORT OF THE SECRETARY OF WAR.

L—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

RECAPITULATION.

From what appropriation paid.	No. of employees	Monthly pay.	Yearly pay.
<i>Division of the Atlantic and Department of the East.</i>			
Incidental expenses.....	45	\$4,132.96	\$49,595.52
Barracks and quarters.....	3	180.00	2,160.00
Army transportation.....	54	7,000.00	84,000.00
Total.....	102	7,412.96	88,755.52
<i>Division of the Pacific and Department of California.</i>			
Regular supplies.....	4	516.00	6,192.00
Incidental expenses.....	19	1,715.04	20,580.48
Army transportation.....	43	3,150.00	37,800.00
Total.....	66	5,181.04	62,572.48
<i>Department of Arizona.</i>			
Regular supplies.....	17	1,600.00	19,200.00
Incidental expenses.....	25	2,160.00	25,920.00
Barracks and quarters.....	1	60.00	720.00
Army transportation.....	46	4,905.00	58,860.00
Total.....	109	8,725.00	104,700.00
<i>Department of the Columbia.</i>			
Regular supplies.....	9	348.00	4,176.00
Incidental expenses.....	12	1,519.56	18,234.72
Barracks and quarters.....	1	75.00	900.00
Army transportation.....	47	2,758.32	33,100.80
Total.....	69	4,690.88	56,301.52
<i>Division of the Missouri.</i>			
Incidental expenses.....	20	2,121.64	25,459.68
Army transportation.....	8	431.50	5,178.00
Total.....	28	2,553.14	30,637.68
<i>Department of the Missouri.</i>			
Regular supplies.....	9	695.00	8,340.00
Incidental expenses.....	34	2,901.63	34,819.56
Barracks and quarters.....	2	120.00	1,440.00
Army transportation.....	119	5,304.90	63,658.80
Clothing, camp and garrison equipage.....	4	416.00	4,992.00
Total.....	168	9,518.23	114,250.36
<i>Department of Dakota.</i>			
Regular supplies.....	7	495.00	5,940.00
Incidental expenses.....	35	2,990.26	35,883.12
Barracks and quarters.....	7	486.00	5,832.00
Army transportation.....	167	8,236.61	98,839.32
Total.....	216	12,218.23	148,614.72
<i>Department of the Platte.</i>			
Regular supplies.....	5	390.00	4,680.00
Incidental expenses.....	45	3,421.63	41,059.56
Barracks and quarters.....	3	145.00	1,740.00
Army transportation.....	106	6,791.61	81,499.32
Total.....	159	10,748.24	128,978.88
<i>Department of Texas.</i>			
Regular supplies.....	9	570.00	6,840.00
Incidental expenses.....	36	2,353.31	28,239.72
Barracks and quarters.....	2	149.00	1,788.00
Army transportation.....	68	2,994.38	35,932.56
Total.....	115	6,066.69	72,800.28

I.—Statement showing the number of civilians employed by the month and paid by the Quartermaster's Department, etc.—Continued.

RECAPITULATION—Continued.

From what appropriation paid.	No. of employes.	Monthly pay.	Yearly pay.
<i>General depots.</i>			
Regular supplies	4	\$315.00	\$3,780.00
Incidental expenses	104	9,959.53	119,514.36
Cavalry and artillery horses	1	150.00	1,800.00
Barracks and quarters	1	90.00	1,080.00
Army transportation	60	4,744.95	56,939.40
Clothing, camp and garrison equipage	126	8,649.78	103,797.36
Total	316	22,909.26	286,911.12
<i>Independent posts.</i>			
Incidental expenses	7	562.90	6,991.80
Army transportation	4	198.33	2,379.96
Total	11	761.23	9,371.76
<i>Recruiting depots.</i>			
Regular supplies	2	150.00	1,800.00
Incidental expenses	5	564.99	6,779.88
Army transportation	7	475.00	5,700.00
Total	14	1,189.99	14,279.88
<i>Total amounts by appropriations.</i>			
Regular supplies	66	4,318.32	51,819.84
Incidental expenses	388	34,242.47	410,909.64
Cavalry and artillery horses	1	150.00	1,800.00
Barracks and quarters	20	1,305.60	15,667.92
Army transportation	789	43,442.08	521,312.16
Clothing, camp and garrison equipage	130	9,060.44	108,797.28
Total	1,394	92,525.57	1,110,306.84

K.—Statement showing the amounts expended by officers of the Quartermaster's Department during, and on account of the appropriations for, the fiscal year ended June 30, 1888, and balances in their hands so far as shown by accounts received at this office.

Names of officers.	Expenditures.	Balances.
Atwood, E. B., captain and assistant quartermaster	\$95,788.79	\$10,423.29
Alligood, C. A., captain and military store-keeper	1,108.34	777.35
Ayres, J. C., captain ordnance department	2,712.80	
Ayer, W. E., lieutenant Twelfth Infantry	50.05	
Adams, T. R., lieutenant Fifth Artillery	3,297.04	
Anglum, D. F., lieutenant Twelfth Infantry	3,486.15	
Anderson, J., lieutenant Eighteenth Infantry	3,873.24	
Anderson, R. H., jr., lieutenant Ninth Infantry	534.33	
Angur, A. A., lieutenant Twenty-fourth Infantry	2,617.19	
Bingham, J. D., colonel and assistant quartermaster-general	101,017.60	9,552.51
Batchelder, R. N., lieutenant-colonel and deputy quartermaster-general	214,270.09	23,196.46
Belcher, J. H., major and quartermaster	100,964.27	8,665.50
Barnett, C. R., captain and assistant quartermaster	150,397.24	194.56
Bird, C., captain and assistant quartermaster	81,809.24	4,665.76
Blunt, A. P., captain and assistant quartermaster	23,403.91	50.00
Booth, C. A., captain and assistant quartermaster	30,530.63	
Barrett, A., captain and military store-keeper	205,264.60	6,001.02
Baker, F., captain ordnance department	3,442.22	18.19
Berry, L. G., lieutenant Fourth Artillery	158.47	
Brown, G. LeR., lieutenant Eleventh Infantry	16,700.74	55.81
Benton, E. S., lieutenant Third Artillery	1,936.27	
Blow, W. N., lieutenant Fifteenth Infantry	6,817.43	40.19
Bowen, W. H. C., lieutenant Fifth Infantry	3,768.82	
Bellinger, J. D., lieutenant Fifth Cavalry	511.52	
Brett, J. E., lieutenant Twenty-fourth Infantry	5,996.43	
Burbank, C. S., lieutenant Tenth Infantry	5,311.83	51.89
Baldwin, J. A., lieutenant Ninth Infantry	4,756.77	14.73

K.—Statement showing the amounts expended by officers of the Quartermaster's Department, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Barbour, J. L., lieutenant Seventh Infantry	\$674.53	.....
Brumback, V. J., lieutenant Second Infantry	42.80	.....
Byrne, C., lieutenant Sixth Infantry	7,790.74	\$1,327.52
East, C. L., Jr., lieutenant First Artillery	1,401.21	.....
Earnhart, F. H., lieutenant Eighteenth Infantry	7,174.77	.....
Boughton, D. H., lieutenant Third Cavalry	4,375.48	.....
Bean, J. W., captain Fifteenth Infantry	5.00	.....
Brown, R. P., lieutenant Fourth Infantry	13,057.06	2,777.69
Bell, G. Jr., lieutenant Third Infantry	3,160.03	.....
Barnum, M. H., lieutenant Third Cavalry	96.70	29.50
Butler, W. C., lieutenant Third Infantry	1,390.48	931.64
Bonesteel, C. H., lieutenant Twenty-first Infantry	1,446.40	400.81
Baylor, T. G., colonel ordnance department .....	.....	373.55
Bartlett, C. G., lieutenant-colonel First Infantry	1,578.70	.....
Chandler, J. G., lieutenant-colonel and deputy quartermaster-general	31,727.57	55,227.58
Campbell, L. E., captain and assistant quartermaster	145,739.22	22,928.82
Cook, G. H., captain and assistant quartermaster	37,837.08	10,330.24
Clem, J. L., captain and assistant quartermaster	7,963.14	4,451.80
Clark, C. H., lieutenant ordnance department	2,142.01	.....
Crawford, M., lieutenant Second Artillery	10,818.68	.....
Clagett, J. R., lieutenant Twenty-third Infantry	0,708.41	.....
Curtis, A. F., lieutenant Second Artillery	3,748.23	58.17
Chase, C., lieutenant Third Artillery	9,528.21	143.24
Churchill, C. A., lieutenant Fifth Infantry	1,654.83	.....
Carson, J. M., lieutenant Fifth Cavalry	53.45	.....
Chynoweth, E., lieutenant Seventeenth Infantry	3,842.10	.....
Cranston, J. R., lieutenant Tenth Infantry	3,594.53	.....
Clarke, C. J. T., lieutenant Tenth Infantry	1,811.04	.....
Cameron, G. H., lieutenant Seventh Cavalry	278.25	.....
Clark, W. O., lieutenant Twelfth Infantry	5,909.10	.....
Chamberlin, L. A., captain First Artillery	1,850.00	.....
Connolly, T., lieutenant First Infantry	5,453.92	528.61
Chandler, E., lieutenant Sixteenth Infantry	3,132.46	.....
Cowles, W. H., lieutenant Sixteenth Infantry	244.95	.....
Cochran, C. H., lieutenant Seventh Infantry	231.93	.....
Dandy, G. B., lieutenant-colonel and deputy quartermaster-general	384,433.97	50,261.96
Darrow, W. N. P., lieutenant Fourth Artillery	2,031.66	.....
Davis, T. F., lieutenant Fifteenth Infantry	13,412.26	117.00
Devol, C. A., lieutenant Twenty-fifth Infantry	14,419.94	1,218.71
Dent, J. C., lieutenant Twentieth Infantry	928.03	.....
Davis, J. M. K., lieutenant First Artillery	512.26	.....
Dodds, F. L., lieutenant Ninth Infantry	363.51	.....
Dravo, E. E., lieutenant Sixth Cavalry	6,721.74	.....
Dentler, C. E., lieutenant Sixth Infantry	1,532.74	.....
Duff, R. J., lieutenant Eighth Cavalry	245.00	.....
De Lany, H., lieutenant Ninth Infantry	471.96	.....
Elliot, W. G., lieutenant Ninth Infantry	1,053.56	.....
Evans, W. P., lieutenant Nineteenth Infantry	5,910.44	87.28
Eltonhead, F. E., lieutenant Twenty-first Infantry	900.00	.....
Egbert, A. R., lieutenant Second Infantry	15,356.81	78.71
Eastman, F. P., lieutenant Fourteenth Infantry .....	.....	50
Eckerson, T. H., lieutenant Nineteenth Infantry	72.52	34.63
Foster, C. W., major and quartermaster	120,593.39	10,837.18
Furey, J. V., major and quartermaster	150,940.64	0,136.30
Forsyth, L. C., captain and assistant quartermaster	30,635.45	882.42
Floyd, D. H., captain and assistant quartermaster	121,508.26	21,225.62
Febiger, L., lieutenant Twenty-third Infantry	1,142.78	.....
Flynn, W. F., lieutenant Eighth Cavalry	1,790.33	.....
Fuller, E. B., lieutenant Seventh Cavalry	9,630.26	250.00
French, F. H., lieutenant Nineteenth Infantry	493.75	2.50
Gillies, J., major and quartermaster	125,324.08	.....
Gifford, J. H., lieutenant Second Artillery	331.72	.....
Green, J. O., lieutenant Twenty-fifth Infantry	2,532.38	.....
Galbraith, J. G., lieutenant First Cavalry	27,885.31	378.32
Gerlach, W., lieutenant Third Infantry	9,711.76	142.85
Gustin, J. H., lieutenant Fourteenth Infantry	512.03	.....
Gillmore, O. O. M., lieutenant Eighth Cavalry	7,059.94	.....
Guard, A. McC., lieutenant Nineteenth Infantry	6,267.52	64.29
Goodin, J. A., lieutenant Seventh Infantry	9,902.72	264.75
Greene, L. D., lieutenant Seventh Infantry	97.85	.....
Gilman, B. H., lieutenant Thirteenth Infantry	15,243.63	32.88
Goodale, G. A., captain Twenty-third Infantry	330.25	33.25
Gatewood, C. B., lieutenant Sixth Cavalry	32,709.90	7,102.91
Glenn, E. F., lieutenant Twenty-fifth Infantry	1,371.05	.....
Getty, R. N., lieutenant Twenty-second Infantry	3,510.41	898.05
Griffith, T. W., lieutenant Eighteenth Infantry	179.11	1.87
Griffith, E., lieutenant Thirteenth Infantry	511.10	47.25
Hodges, H. C., lieutenant-colonel and deputy quartermaster-general	241,741.74	47,192.82
Hughes, W. E., major and quartermaster	281,885.23	23,171.45
Humphrey, C. F., captain and assistant quartermaster	82,451.81	27,997.74

K.—Statement showing the amounts expended by officers of the Quartermaster's Department, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Hathaway, F. H., captain and assistant quartermaster	\$18,797.18	\$942.23
Haynsworth, H. J., captain and assistant quartermaster	23,420.31	890.80
Hull, G. A., captain and military store-keeper	48,790.38	1,211.80
Heath, F., captain Ordnance Department	3,135.64	.....
Hale, I., lieutenant Engineer Corps	1,958.94	.....
Hay, C., lieutenant Twenty-third Infantry	74,972.00	87.43
Helstand, H. O. S., lieutenant Eleventh Infantry	3,437.27	.....
Hoyt, R. W., lieutenant Eleventh Infantry	206.66	.....
Huston, J. F., lieutenant Twentieth Infantry	2,492.80	.....
Howard, G., lieutenant Twelfth Infantry	2,095.74	.....
Harmon, M. F., lieutenant First Artillery	433.28	.....
Holley, D. E., lieutenant First Infantry	2,226.06	5.15
Hovey, H. W., lieutenant Twenty-fourth Infantry	9,152.77	.....
Hardie, F. H., lieutenant Third Cavalry	9,230.00	401.88
Hammond, A. G., lieutenant Eighth Cavalry	2,225.36	.....
Hardin, E. E., lieutenant Seventh Infantry	887.21	.....
Hearn, L. J., lieutenant Twenty-first Infantry	33,303.87	.....
Haina, P. C., lieutenant-colonel Engineer Corps	200.00	.....
Hall, C. S., lieutenant Thirteenth Infantry	8,761.15	.....
Howe, W., lieutenant Fourth Artillery	1,694.53	59.38
Humphrey, H. D., lieutenant Twentieth Infantry	2,770.64	28.43
Hersey, M. L., lieutenant Ninth Infantry	718.90	.....
Harris, F. W., lieutenant Fourth Cavalry	3,871.00	193.82
Hardeman, L., lieutenant Fourth Cavalry	1,387.64	301.74
Hobbs, C. W., lieutenant Third Artillery	3,289.89	4,343.07
Hubbard, E. W., lieutenant First Artillery	378.53	227.14
Ingalls, C. H., captain and assistant quartermaster	82,338.76	8,997.50
Ives, E. B., lieutenant Nineteenth Infantry	1,688.57	.....
Irwin, F. G., jr., lieutenant Second Cavalry	5,168.26	77.86
Jacobs, J. W., captain and assistant quartermaster	186,990.23	45,126.31
Jones, S. R., lieutenant Fourth Artillery	7,120.84	3,397.61
Johnson, A., lieutenant Eleventh Infantry	2,448.71	.....
James, W. H. W., lieutenant Twenty-fourth Infantry	1,021.75	.....
Johnson, F. O., lieutenant Third Cavalry	458.06	.....
Kirk, E. B., major and quartermaster	76,140.65	618.95
Kimball, A. S., major and quartermaster	11,171.08	70,529.19
Kingsbury, F. W., lieutenant Second Cavalry	33,764.45	4,120.06
Knight, J. T., lieutenant Third Cavalry	225.20	.....
Kendall, H. F., lieutenant Eighth Cavalry	573.40	.....
Kendrick, F. M. H., lieutenant Seventh Infantry	1,335.96	.....
Ludington, M. L., lieutenant-colonel and deputy quartermaster-general	661,355.92	108,743.45
Lee, J. G. C., major and quartermaster	5,988.67	23,301.21
Lord, J. H., captain and assistant quartermaster	65,556.19	1,531.12
Lewis, E. M., lieutenant Eleventh Infantry	2,521.75	.....
Leary, P., jr., lieutenant Fourth Artillery	491.80	73.50
Lloyd, E., lieutenant Fifteenth Infantry	173.35	.....
La Point, H. C., lieutenant Second Cavalry	906.57	.....
London, R., lieutenant Fifth Cavalry	14,625.56	.....
Leavell, B. W., lieutenant Twenty-fourth Infantry	262.66	.....
Lassiter, W., lieutenant Sixteenth Infantry	3,980.56	.....
Lester, C. H., lieutenant Eighth Cavalry	1,420.15	.....
Lassaigne, A. I., lieutenant Seventh Infantry	356.18	.....
Leyden, J. A., lieutenant Fourth Infantry	2,880.84	.....
Lawton, H. W., captain Fourth Cavalry .....	.....	1,121.74
Lockett, J., lieutenant Fourth Cavalry	757.37	132.04
Moore, J. M., lieutenant-colonel and deputy quartermaster-general	104,011.83	26,883.49
McGonnigle, A. J., major and quartermaster	465,151.49	87,864.04
Marshall, J. M., captain and assistant quartermaster	133,666.91	4,289.42
Miltimore, A. E., captain and assistant quartermaster	277,141.94	9,227.29
McCauley, C. A. H., captain and assistant quartermaster	72,110.30	362.77
Miller, C. F., captain and assistant quartermaster	19,454.86	1,452.88
Morgan, A. S. M., captain Ordnance Department	972.20	4.92
Michaelis, O. E., captain Ordnance Department	1,238.26	.....
MacNutt, I., captain Ordnance Department	2,618.01	.....
Macklin, J. E., lieutenant Eleventh Infantry	23,397.94	.....
Michie, R. E. L., lieutenant Second Cavalry	7,195.70	.....
McClure, C., lieutenant Eighteenth Infantry	1,007.07	.....
McDonald, J. B., lieutenant Tenth Cavalry	10,141.05	971.84
Murray, C. H., lieutenant Fourth Cavalry	637.75	.....
More, E. C., United States consul-general, Mexico City	1,503.19	.....
Manning, W. C., captain Twenty-third Infantry	271.00	.....
McCammon, W. W., lieutenant Fourteenth Infantry	3,074.89	860.33
McCoy, F. B., lieutenant Third Infantry	271.65	.....
Martin, M. C., lieutenant Twenty-second Infantry	822.06	1,861.19
Mosher, T., lieutenant Twenty-second Infantry	362.75	.....
Mencher, C. T., lieutenant First Artillery	671.38	.....
Maney, J. A., lieutenant Fifteenth Infantry	10.00	.....
Nash, W. H., captain, Subsistence Department	8,316.13	.....
Niles, L., lieutenant Second Artillery	5,844.59	49.10
Nordstrom, C. E., lieutenant Tenth Cavalry	9,187.67	5,921.18

K.—Statement showing the amounts expended by officers of the Quartermaster's Department, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Neall, J. M., lieutenant Fourth Cavalry	\$3,696.32	.....
Noyes, C. R., lieutenant Ninth Infantry	4,605.90	\$179.24
O'Brien, J. J., lieutenant Fourth Infantry	14,163.30	.....
Oyster, J. S., lieutenant First Artillery	35,004.06	.....
Ogle, A., lieutenant Seventeenth Infantry	3,465.08	166.55
O'Brien, M. J., lieutenant Thirteenth Infantry	634.40	193.17
Perry, A. J., colonel and assistant quartermaster-general	28,773.21	.....
Patten, W. S., captain and assistant quartermaster	78,128.54	30,833.93
Pond, G. E., captain and assistant quartermaster	171,217.78	75,644.61
Pullman, J. W., captain and assistant quartermaster	212,203.38	27,134.82
Pope, J. W., captain and assistant quartermaster	147,911.80	1,124.04
Pratt, E. B., lieutenant Twenty-third Infantry	2,240.53	.....
Pitman, J., captain Ordnance Department	360.00	.....
Palmer, A. M., lieutenant Twenty-fourth Infantry	6,519.04	1,497.98
Parker, J., lieutenant Fourth Cavalry	9,441.72	.....
Peshine, J. H. H., lieutenant Thirteenth Infantry	1,054.30	.....
Palmer, G., lieutenant Ninth Infantry	9,626.26	423.38
Payne, J. A., lieutenant Nineteenth Infantry	2,394.98	.....
Plummer, E. H., lieutenant Tenth Infantry	2,997.75	97.00
Pettit, J. S., lieutenant First Infantry	286.30	.....
Perkins, F., lieutenant Fifth Infantry	179.75	.....
Phipps, F. H., major Ordnance Department	56.50	.....
Reynolds, C. A., lieutenant-colonel and deputy quartermaster-general	3,273.29	.....
Robinson, A. G., major and quartermaster	123,154.93	379.63
Rockwell, A. F., major and quartermaster	492,694.44	64,554.13
Rockwell, J., Jr., captain Ordnance Department	4,476.42	106.33
Reilly, J. W., major Ordnance Department	1,462.90	.....
Rodgers, J. F., captain and military store-keeper	93,897.36	.....
Rexford, W. H., captain Ordnance Department	780.24	.....
Robinson, W. W., Jr., lieutenant Seventh Cavalry	3,256.02	.....
Rogers, J. S., lieutenant Twentieth Infantry	13,650.84	645.75
Rondiez, L. S., lieutenant Fifteenth Infantry	4,923.76	10.18
Reynolds, W. B., lieutenant Fourteenth Infantry	4,051.52	.....
Robinson, H. E., lieutenant Fourth Infantry	1,633.65	.....
Rice, F. S., lieutenant First Infantry	6,926.34	221.77
Roach, H. M., lieutenant First Infantry	5,109.04	.....
Read, R. D., Jr., lieutenant Tenth Cavalry	4,991.45	69.33
Robertson, E. B., lieutenant Ninth Infantry	4,347.71	2.50
Reber, S., lieutenant Fourth Cavalry	1,255.77	.....
Robins, E. S., lieutenant Third Cavalry	195.65	.....
Reynolds, B., lieutenant Third Cavalry	349.04	.....
Read, G. W., lieutenant Fifth Cavalry	7,086.10	.....
Rafferty, W. C., lieutenant First Artillery	438.02	.....
Roe, F. W., lieutenant Third Infantry	1,398.06	.....
Richmond, E. T. C., lieutenant Second Artillery	359.40	573.68
Saxton, E., colonel and assistant quartermaster-general	10,122.18	.....
Scolly, J. W., major and quartermaster	40,234.47	2,026.61
Smith, G. C., major and quartermaster	19,008.59	.....
Simpson, J., captain and assistant quartermaster	50,000.22	2,614.94
Smith, F. A., lieutenant Twelfth Infantry	185.75	.....
Stone, W. P., lieutenant Second Artillery	539.82	.....
Smith, A. L., lieutenant Fourth Cavalry	6,805.51	44.29
Stewart, W. F., lieutenant Fourth Artillery	5,138.90	1,508.00
Schenck, A. D., lieutenant Second Artillery	5,703.94	1.20
Sladen, J. A., lieutenant Fourteenth Infantry	15,999.74	.....
Starring, W. S., captain Ordnance Department	1,193.76	.....
Strother, L. H., lieutenant First Infantry	8,863.44	232.27
Stottler, V. E., lieutenant Tenth Infantry	4,045.12	.....
Smith, W. H., lieutenant Tenth Cavalry	2,850.82	449.97
Slocum, S. L. H., lieutenant Eighth Cavalry	128.46	.....
Steedman, R. R., lieutenant Sixteenth Infantry	3,931.09	.....
Scriven, G. P., lieutenant Third Artillery	14.00	.....
Summerhayes, J. W., lieutenant Eighth Infantry	13,672.67	234.69
Stotsenburg, J. M., lieutenant Sixth Cavalry	2,544.36	.....
Simpson, W. A., lieutenant Second Artillery	12,378.49	.....
Scott, G. L., lieutenant Sixth Cavalry	21,922.22	.....
Stewart, C., lieutenant Third Cavalry	62.80	100.18
Tompkins, C. H., colonel and assistant quartermaster-general	47,526.53	11,871.43
Thompson, C. B., lieutenant Fifth Infantry	11,418.62	46.49
Tutherly, H. E., lieutenant First Cavalry	5,746.28	.....
Thies, F., lieutenant Third Infantry	5,464.01	.....
Towers, J. A., lieutenant First Artillery	388.18	.....
Tyson, L. D., lieutenant Ninth Infantry	171.75	.....
Taylor, A., lieutenant Third Cavalry	452.44	.....
Taylor, C. W., lieutenant Ninth Cavalry	79,497.24	234.32
Traub, F. E., lieutenant First Cavalry	6,070.49	258.00
Turner, R. B., lieutenant Sixth Infantry	2,581.28	.....
Towsley, C. D., lieutenant Second Infantry	26.10	.....
True, T. E., lieutenant Fourth Infantry	435.50	.....
Tedes, A. W., lieutenant Fifth Artillery	8,633.53	292.15
Schrader, F., lieutenant Twelfth Infantry	8,558.84	262.07

K.—Statement showing the amounts expended by officers of the Quartermaster's Department, etc.—Continued.

Names of officers.	Expenditures.	Balances.
Van Orsdale, J. T., Lieutenant Seventh Infantry	\$5,792.55	\$254.58
Varnum, C. A., Lieutenant Seventh Cavalry	1,305.69	4,598.24
Vedder, S. C., Lieutenant Nineteenth Infantry	75.00	
Vance, Z. B., jr., Lieutenant Nineteenth Infantry	137.25	
Van Liew, F. T., Lieutenant Second Infantry	34.00	
Weeks, G. H., major and quartermaster	294,982.86	
Williams, C. W., captain and assistant quartermaster	35,961.92	4,986.70
Wheeler, D. D., captain and assistant quartermaster	125,416.10	1,848.65
Waltz, M. F., Lieutenant Twelfth Infantry	74.47	
Wood, P. G., Lieutenant Twelfth Infantry	477.78	
Woodward, C. G., Lieutenant Third Artillery	11,692.85	171.34
Whistler, G. N., Lieutenant Fifth Artillery	9,122.06	55.74
Wilson, J. E., Lieutenant Fifth Infantry	320.15	
Webb, G. W., Lieutenant Twenty-fifth Infantry	7,753.02	
Waters, J. H., Lieutenant Twentieth Infantry	1,855.30	
White, J. V., Lieutenant First Artillery	3,428.56	
Wetherill, A. M., Lieutenant Sixth Infantry	20,846.71	252.70
Webster, J. McA., Lieutenant Twenty-second Infantry	17,722.06	
Wood, W. T., Lieutenant Eighteenth Infantry	2,321.77	63.45
Whipple, H. S., Lieutenant Tenth Cavalry	1,217.70	
Williams, C. A., Lieutenant Twenty-first Infantry	3,781.88	
Willard, W., captain Subsistence Department	12,899.30	
Wilson, R. H., Lieutenant Eighth Infantry	10,959.43	
Wotherspoon, W. W., Lieutenant Twelfth Infantry	8,027.34	32.05
Woodbridge, F., Lieutenant Seventh Infantry	208.03	
Wilkinson, J. W., Lieutenant Seventh Cavalry	8,288.01	
Walcutt, C. C., jr., Lieutenant Eighth Cavalry	46.10	
Williams, W. M., Lieutenant Nineteenth Infantry	870.20	1,222.83
Young, A. H., captain and assistant quartermaster	83,061.76	1,806.01
Young, G. S., Lieutenant Seventh Infantry	14,113.65	62.86
Total	8,202,396.11	971,014.56

4.—Report of Lieut. Col. C. G. Sawtelle, deputy quartermaster-general, U. S. Army, of the clothing and equipage returns, Branch C, for the fiscal year ended June 30, 1888.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 24, 1888.

To this division is assigned the examination of the returns of clothing and equipage, with the correspondence relating thereto, and the necessary records of letters received and sent, and of returns received and forwarded to the Second Auditor of the Treasury.

There were employed during the year eight clerks, and from October 25, 1887, to June 30, 1888, one copyist.

The amount of work done in the division is shown by the following statement:

Work done in Branch C during the fiscal year ended June 30, 1888.

Returns on hand June 30, 1887	1,181
Returns received during fiscal year	3,745
Total	4,926
Returns examined during fiscal year	3,868
Returns on hand for examination June 30, 1888	1,038
Letters received, briefed, and entered	2,819
Letters written	6,580
Letters sent, recorded	3,392
Replies to remarks examined	1,242
Auditor's settlements registered	1,222
Transfers of property verified	25,541
Sales by auction and to officers verified	3,364
Copy extracts made, form 45	4,425

Respectfully submitted.

C. G. SAWTELLE,
Deputy Quartermaster-General, U. S. Army.

5.—*Report of Lieut. Col. C. G. Sawtelle, deputy quartermaster-general, U. S. Army, of the operations of the barracks and quarters branch for the fiscal year ended June 30, 1888.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
WASHINGTON, D. C., October 2, 1888.

GENERAL: I have the honor to report that the work assigned to Division G is entirely of a current character; that it is confined principally to the receipt and final disposition (including briefing, recording, and analyzing) of all applications, projects, and requisitions relative to the construction, improvement, and repair of army shelter, such as barracks, officers' quarters, store-houses, stables, guard-houses, hospitals, etc.; also wharves, bridges, shooting-galleries, and target-ranges, the hire and purchase of grounds for military encampments, the improvement of water supply, drainage, and sewerage at military posts, the care and preservation of post cemeteries, and other miscellaneous duties, including the preparation of drawings, specifications, estimates, and studies for various work under heads above noted.

Congress, by act approved February 9, 1887, appropriated, under head of barracks and quarters.....	\$620,000.00
To this add amounts credited to the appropriation during the fiscal year.....	1,185.11
Total to be accounted for.....	621,185.11
Remitted to officers for rent	124,353.92
Remitted to officers for repairs, construction, and labor.....	492,929.31
Requested on Treasury settlements	961.90
	<hr/> 618,245.13
Balance on hand June 30, 1888.....	2,939.98

The principal operations of the fiscal year may be noted as follows:

NEW CONSTRUCTIONS.

During the year the construction of barracks, officers' quarters, store-houses, stables, offices, guard-houses, bake-houses, magazines, shops, granaries, bath-houses, sheds, privies, and corrals was duly authorized at an estimated cost of \$188,252.

These structures were to be erected at the military posts in the States of New York, Maryland, Arkansas, Florida, Nebraska, Illinois, Colorado, Texas, and California, and in the Territories of Montana, Dakota, Wyoming, Utah, Indian, New Mexico, Arizona, Idaho, and Washington.

REPAIRS.

Based upon special estimates authority was given for repairs, alterations, etc., to public buildings, and for the purchase of building material and tools for use at the various posts to the amount of \$234,482.

Recapitulation of the expenditures authorized for new constructions, repairs, etc., and how distributed.

Designation.	Construction.	Repairs.	Total.
Department of Dakota.....	\$20, 100	\$28, 275	\$48, 375
Department of the Platte.....	15, 283	20, 316	35, 599
Department of the Missouri.....	22, 885	82, 874	55, 259
Department of Texas.....	17, 481	20, 473	37, 954
Total Division of the Missouri.....	75, 749	101, 438	177, 187
Department of Arizona.....	29, 602	34, 939	64, 541
Department of California.....	1, 715	30, 760	32, 475
Department of the Columbia.....	37, 890	16, 273	54, 163
Total Division of the Pacific.....	69, 207	81, 972	151, 179
Division of the Atlantic.....	43, 296	51, 072	94, 368
Total.....	188, 252	234, 482	422, 734

In addition to the above the following expenditures were authorized for barracks and quarters, repairs and improvements at the following independent posts, recruiting stations, and depots:

Designation.	Cost.	Designation.	Cost.
Jefferson Barracks.....	\$1, 830	Jeffersonville Depot.....	\$1, 795
Saint Louis Clothing Depot.....	500	Washington Depot.....	116
Columbus Barracks.....	6, 127	New York Depot.....	300
Willie Point.....	15, 467	Total.....	50, 138
David's Island.....	21, 753		
Philadelphia Depot.....	2, 250		

MILITARY POSTS.

In sundry civil bill approved March 3, 1887, Congress appropriated for the construction of buildings at, and the enlargement of, such military posts as in the judgment of the Secretary of War may be necessary, \$200,000.

The Secretary of War has distributed the fund as follows:

Post.	Designation.	Allowance.
Atlanta.....	For three double sets officers' quarters, store-house, stable, and corral, and for change in style of roof of other officers' quarters.	\$58, 424. 00
Fort Porter.....	For three double sets officers' quarters.....	28, 000. 00
San Antonio.....	For three barracks and four sets officers' quarters.....	50, 000. 00
Presidio of San Francisco.....	Providing shelter for garrison withdrawn from Fort Canby.....	2, 358. 00
Fort Myer.....	For cavalry barracks, mess-hall, stables, and necessary out-buildings.	28, 172. 16
Fort Robinson.....	To harmonize expenditures in building operations.....	1, 271. 92
Fort Warren.....	For commanding officers' quarters and one double set of officers' quarters.	30, 793. 00
Total.....		199, 019. 08

Atlanta being designed for a ten-company post, still under construction, the establishment of which was authorized by Congress by grant of \$15,000 in sundry civil bill of July 7, 1884, for purchase of site, and subsequently by grant of another \$15,000, August 4, 1886, for purchase of additional land; it may be proper to state that apportionments for

building operations thereat have been made by the Secretary of War as follows from various grants made by Congress for the construction and enlargement of such military posts as in his judgment might be necessary:

June, 1886	\$75,000.00
August and November, 1886	52,390.00
May, 1887	57,000.00
June, 1887	1,424.00
Also, in June, 1887, from the appropriation for "regular supplies"	11,623.24
Total	197,437.24

With this money the following buildings have been built by contract, and are now completed:

One double barrack	\$22,740
One triple barrack	29,420
One commissary store-house	4,730
One bake-house	2,730
One double set officers' quarters	12,400
One double set officers' quarters	11,920
One double set officers' quarters	11,600
One guard-house	4,870
Railroad-track scale and wagon-house	2,675
Forage and coal shed	3,249
Wagon-scale shelter	1,723

NOTE.—A hospital has also been built by contract, at a cost of \$8,300, the expense having been charged to the annual hospital appropriation.

The following buildings are in course of construction under contract

Officers' quarters No. 6 (ready for roof)	\$14,380
Officers' quarters No. 7 (first-story wall up)	14,380
Officers' quarters No. 8 (first-floor joists in position)	14,380
Quartermaster's store-house (nearly completed)	5,000
Stable and corral (nearly completed)	7,800

The three double sets of officers' quarters at Fort Porter have been completed at a cost of \$24,360, which includes \$1,560 as cost of plumbing.

The three barracks and four sets of officers' quarters, including plumbing and out-buildings, at San Antonio, have been completed under contract, at a cost of \$49,233. Cost of barracks alone, \$8,309 each. Cost of officers' quarters alone, \$5,317.33 each.

It having been contemplated to establish a 12-company post at San Antonio, the Secretary of War apportioned out of the funds for construction and enlargement of such military posts, as in his judgment might be necessary, the following sums:

In June, 1885	\$75,000
In September, 1886	50,000
In June, 1887	50,000
Total	175,000

With this money the following buildings have been completed under contract:

Five sets officers' quarters, each	\$4,850.00
Four sets officers' quarters, each	5,377.00
Three sets officers' quarters, each	5,317.33
One set officers' quarters	5,400.00
One barrack	10,023.00
Three barracks, each	9,750.00
One center barrack	12,352.00
One barracks	9,562.00
Three barracks, each	8,369.00
One administration building	5,548.00

These prices are exclusive of plumbing and necessary out-buildings. All contracts have been closed and no building operations are now in progress at San Antonio, although additional work is contemplated at an early day.

The work at Fort Myer was done by contract, the cost of the two cavalry stables, one men's barracks, and one mess-house was \$24,000.

For the new officers' quarters at Fort Warren the contract prices are as follows:

Commanding officer's quarters.....	\$11,300
One double set.....	19,493

The work is still in progress.

FORT RILEY, KANS.

Under the act approved January 29, 1887, to provide a school of instruction for cavalry and light artillery the sum of \$200,000 was appropriated.

Contracts have been made for the following buildings, lowest bid being as follows:

Administration building	\$13,000
Four double sets officers' quarters	38,000
Two artillery barracks	34,000
Two artillery stables and corrals	24,000
Two artillery gun-sheds	16,000
Two workshops.....	2,000
Two outhouses.....	1,000
	<hr/>
	128,000
Or the whole for	124,998

which was duly accepted.

Present condition of the above work, as per latest report, is as follows: Administration building, walls up to second floor; four double officers' quarters, Nos. 7 and 9, second-story wall in progress; Nos. 15 and 17, walls to second story; Nos. 6 and 8, first floor laid; Nos. 14 and 16, walls up to first floor. Artillery barracks No. 1, roof nearly on; artillery barracks No. 2, being plastered; stables and corrals, nearly finished; gun-sheds, nearly finished; workshops, nearly finished; outhouses, under contract.

Other buildings authorized and completed.

One double set officers' quarters	\$7,650.61
Plumbing for same	438.00
Thirteen out-buildings	2,065.00
Post commander's quarters	} 17,275.00
Senior artillery officers' quarters.....	
Four double sets officers' quarters.....	38,650.00

It may be further stated in this connection that the two double barracks and two double sets officers' quarters authorized by the Secretary of War from the fund granted by Congress August 4, 1886, for the construction and enlargement of military posts, were completed in September last at a cost of \$22,800 for the former and \$14,521 for the latter.

FORT D. A. RUSSELL.

The act of Congress approved January 29, 1887, appropriated \$30,000 to complete the quarters and barracks at Fort D. A. Russell.

With this \$30,000 and the \$20,000 apportioned by the Secretary of

War from the fund granted in sundry-civil bill of August 4, 1886, for construction of buildings at, and the enlargement of, such military posts as, in his judgment, might be necessary, he approved plans for the following work: Converting quartermaster's store-house into barracks; converting commissary store-house into barracks; coal-house; infantry barracks; field officers' quarters (2); quartermaster's store-house; subsistence store-house; single sets officers' quarters.

According to latest reports, this work stands as follows:

Quartermaster's store-house (completed).....	\$3,110
Commissary store-house (completed).....	3,050
Coal-house (completed)	690
Commissary store-house converted into barracks (completed).....	1,297
Field officers' quarters No. 1 (foundation and cellar walls completed)	5,055
Field officers' quarters No. 2 (foundation and cellar walls completed)	5,055
Converting quartermaster's store-house into barracks (porch completed), etc.	1,680
New barracks (foundation and cellar walls completed).....	4,690
Captain's quarters No. 1 (foundation and cellar walls completed).....	3,769
Captain's quarters No. 2 (foundation and cellar walls completed).....	3,769
Captain's quarters No. 3 (foundation completed).....	3,769
Captain's quarters No. 4 (excavation made)	3,769

PORT ROBINSON.

An act of Congress approved January 29, 1887, appropriated \$55,000 to complete the quarters and barracks at Fort Robinson in the State of Nebraska for a garrison of ten companies.

With this money and the \$20,000 apportioned by the Secretary of War from the fund granted in sundry civil bill of August 4, 1886, for construction of buildings at and the enlargement of such military posts as in his judgment might be necessary, and the \$1,271.92 from similar fund of March 3, 1887, the following authorized buildings have been built and completed:

Six double sets officers' quarters.....	\$36,904.80
Six barracks.....	36,105.90
Three stables	3,260.87
Total	76,271.57

PORT SHERIDAN, ILL.

Under the joint resolution of Congress approved March 3, 1887, the Secretary of War has accepted the tract of land donated by the Commercial Club of Chicago as a site for a new military post near that city, the Department of Justice having rendered favorable opinion regarding the title.

It is proposed to make this a ten-company post, six companies infantry and four troops cavalry, and the preparation of plans for the requisite buildings and also for water, drainage, and heating has been committed to the chief quartermaster Division of the Missouri.

DENVER, COLO.

An act of Congress approved February 17, 1887, authorized the establishment of a military post near the city of Denver, on suitable ground to be donated free of cost to the United States, and appropriated the sum of \$100,000 for the commencement of the work of constructing the necessary buildings, quarters, barracks, and stables.

The site having been selected by the Lieutenant-General, the Department of Justice having rendered favorable opinion regarding title, and

the State of Colorado having ceded jurisdiction over the tract, its limits have been duly announced in general orders from headquarters of the Army.

It is proposed to make this a ten-company post, four troops of cavalry and six companies of infantry, the buildings to be of brick. For "commencement of the work" the Secretary of War has already authorized acceptance of the lowest bid received under advertisement, viz :

Four double sets officers' quarters.....	\$49,000
Two infantry barracks.....	29,900
One storehouse.....	10,900
One stable.....	7,950
Total.....	97,750

NEWPORT, KY.

An act of Congress approved March 3, 1887, appropriated \$100,000 for the erection of necessary and suitable buildings and the construction of other necessary improvements upon ground to be purchased for the establishment of a new post near Newport, Ky.

The Secretary of War having selected a site known as the Bigstaff, Happensack, Bloom, and Shaw tracts, covering 111 acres, and the Department of Justice having rendered favorable opinion regarding title, the full amount of agreed purchase-money, viz, \$43,100, has been paid.

The Secretary of War has approved plans for the following buildings, as submitted by the Quartermaster-General, and authorized construction by contract, as follows :

Two barracks.....	\$38,888
One commanding officer's quarters.....	9,844
One store-house.....	5,376
One bake-house.....	3,250
Three double sets officers' quarters.....	34,500
Total.....	92,058

He has also approved plans for three double sets of non-commissioned staff quarters, but erection thereof is deferred for the present.

NEW YORK.

An act of Congress approved February 2, 1886, authorized the purchase of the old Produce Exchange Building and site in New York City, and appropriated \$200,000 for the alteration and remodeling of the building so as to make it suitable in all respects for Government use.

The work of alteration, etc., has been done under contract, but it has been found that a further grant of money will be necessary in order to make the building "suitable in all respects for Government use."

Expenditures authorized for water, drainage, sewer, wharf, road, and various other improvements chargeable to the appropriation for Army transportation.

Station.	Water, drainage, sewerage.	Roads, walks, grading, bridges.	Wharves.	Miscellaneous.
Fort Wayne, Mich.	\$1,455	\$433		\$125
Fort Mackinac, Mich.				168
Fort Porter, N. Y.	493	1,425		500
Fort Niagara, N. Y.	960	515		35
Fort Ontario, N. Y.	255			
Madison Barracks, N. Y.	5,169			108
Plattsburgh Barracks, N. Y.	1,047	93		
Fort Preble, Me.	088			41
Fort Warren, Mass.	2,500	68	\$1,063	
Fort Adams, R. I.	1,650	222	640	
Fort Trumbull, Conn.	538			
Fort Hamilton, N. Y.	869			
Fort Wadsworth, N. Y.	1,635	46		
Fort Columbus, N. Y.		923		259
Governor's Island, N. Y.	12,669			
Fort Schuyler, N. Y.	506			
Fort McHenry, Md.	374	25	1,396	
Washington Barracks, D. C.	954	9,135		
Fort Monroe, Va.	2,606		5,103	
Saint Francis Barracks, Fla.	759			
Fort Barrancas, Fla.				1,903
Mount Vernon Barracks, Ala.	714			
Jackson Barracks, La.	488	185		
Little Rock Barracks, Ark.	4,635			
Newport Barracks, Ky.	42			
Atlanta, Ga.	18,100	36,974		250
Fort Myer, Va.	10,040	11,445		
Fort Wood, N. Y.	183			
Fort A. Lincoln, Dak.	76			
Fort Custer, Mont.	10,755			
Fort Keogh, Mont.	131			
Fort Meade, Dak.	1,920			
Fort Pembina, Dak.	50			
Fort Snelling, Minn.	23			
Fort Sully, Dak.	67			
Cheyenne Depot, Wyo.				20
Fort Bridger, Wyo.	943			
Fort D. A. Russell, Wyo.	243			
Fort Douglas, Utah	437			
Fort Laramie, Wyo.	691			
Fort McKinney, Wyo.	1,326			
Fort Niobrara, Nebr.				100
Fort Omaha, Nebr.	305			
Fort Robinson, Nebr.	1,282			
Fort Sidney, Nebr.	365			
Fort Washakie, Wyo.	250			153
Fort Du Chene, Utah	600			
Fort Sheridan, Ill.			14,300	
Fort Hays, Kans.		64		26
Fort Reno, Ind. T.				602
Fort Riley, Kans.	2,342	3,157		
Fort Sill, Ind. T.				280
Fort Supply, Ind. T.				140
Denver, Colo.	8,381			
Fort Brown, Tex.	369			
Fort Concho, Tex.	181			
Fort Davis, Tex.	1,690			
Fort McIntosh, Tex.	657			
Fort Ringgold, Tex.	1,293			
San Antonio, Tex.	4,487	2,566		
Fort Hancock, Tex.	685			
Fort Bayard, N. Mex.	1,694			
Fort Bliss, Tex.	999			
Fort Selden, N. Mex.	120			
Fort Stanton, N. Mex.	6,145			
Fort Union, N. Mex.	455			
Fort Wingate, N. Mex.	2,294			
Fort Bowie, Ariz.	250			
Fort Grant, Ariz.	5,288			
Fort Huachuca, Ariz.	5,049			
Fort Lowell, Ariz.	2,585			
San Carlos, Ariz.				250
Fort Thomas, Ariz.	500			

Expenditures authorized for water, drainage, sewer, wharf, etc.—Continued.

Station.	Water, drainage, sewerage.	Roads, walks, grad- ing, bridges.	Wharves.	Miscellaneous.
Benicia Barracks, Cal.				1,282
Fort Gaston, Cal.	460			
Presidio San Francisco, Cal.	3,487			
Fort Townsend, Wash.	450			
Vancouver Barrack, Wash.	26,076			
Whipple Barracks, Ariz.	1,400			
Jefferson Barracks, Mo.	16,700			
David's Island, N. Y.	5,720	1,139	1,850	1,480
Columbus Barracks, Ohio.		1,000		
Jeffersonville Depot, Ind.	380	3,929		
Philadelphia Depot, Pa.		1,600		50
Willels Point, N. Y.	33,772	3,000	1,200	
Hot Springs, Ark.	75			
Fort Pickens, Fla.	50		528	
Pittsburgh, Pa.				13
Fort Livingston, La.	39			
Fort Pike, La.	85			
Fort Montgomery, N. Y.	16			
Total	222,939	71,944	26,080	7,745

“For shelter and shooting galleries and ranges, and repairs thereof,” Congress granted \$10,000 (Army bill, approved February 9, 1887). The apportionments were as follows:

Station.	Designation.	Cost.	Station.	Designation.	Cost.
Fort Adams, R. I.	Materials	\$133.45	Madison Barracks.	Materials	\$83.50
Alcatraz Island.	Flour	4.36	Fort Monroe.	do.	229.23
Fort Barrancae.	Materials	200.00	Fort Myer.	do.	208.86
Benicia Barracks.	Flour	8.30	Mount Vernon	do.	10.00
Do.	Season's rent.	150.00	Barracks.		
Fort Bidwell.	Flour	3.08	Fort McIntosh.	Repairs	100.00
Creedmore.	Season's rent.	450.00	Fort Niagara.	Two saddle horses,	65.00
Do.	Season's additional	50.00		twelve days.	
Do.	rent.		Do.	Competition teams	102.60
Do.	Board and quarters	75.00	Do.	Watchman's pay..	22.50
	for fifteen men.		Fort Omaha.	Rent	660.00
Department of Ari-	Flour	150.00	Camp Poplar River	Material	7.04
zona.			Fort Porter, Bay	Annual rent.	176.00
Department of Co-	do.	50.00	View.		
lumbia.			Do.	Materials	26.63
Department of Mis-	do.	60.00	Fort Preble.	Season's rent.	112.50
souri.			Do.	Additional rent.	56.25
Department of the	do.	65.00	Presidio of San	Rebuilding range..	1,600.00
Platte.			Francisco.		
Department of	do.	25.00	Fort Sully.	Twine	60
Texas.			Fort Snelling.	Repairs	340.00
Division of the At-	do.	50.00	Fort Shaw.	Materials	50.05
lantic.			San Antonio.	Butt embankment.	2,140.00
Do.	Cards	4.00	Fort Trumbull.	Annual rent	50.00
Division of the Mis-	Card board.	5.00	Do.	Rent of Fisher Is-	50.00
souri.				land.	
Fort Gibson.	Materials	26.07	Do.	Lumber	80.00
Fort Huachuca.	do.	150.00	Fort Wadsworth.	Materials	88.60
Fort Keogh.	do.	30.00	Fort Walla Walla.	do.	592.00
Do.	Repairs	68.55	Fort Warren.	do.	113.73
Fort Leavenworth.	Lumber	40.00	Fort Wingate.	Materials, etc.	200.00
Do.	Materials	350.00	Fort Wayne.	Materials	168.12
Little Rock Bar-	Annual rent.	50.00	Ringgold Barracks	do.	60.00
acks.					
Madison Barracks.	do.	415.00	Total		10,000.00

HOSPITALS.

By act approved February 9, 1887, Congress granted \$100,000 for the construction and repair of hospitals.

The following table gives the locality of the hospitals and the amount authorized at each :

Department and post.	Amount.	Department and post.	Amount.
Division of Atlantic:		Missouri—Continued.	
Fort Wayne	\$323.77	Fort Supply	\$379.71
Fort Brady	41.85	Fort Crawford	120.00
Fort Mackinac	437.80	Fort Denver	354.00
Fort Ontario	54.51		
Madison Barracks	115.50	Total Department of Missouri ..	21,639.30
Plattsburgh Barracks	169.26		
Fort Preble	77.00	Texas:	
Fort Warren	269.01	Fort Brown	1,216.17
Fort Hamilton	59.70	Fort Clark	850.25
Fort Wadsworth	55.00	Fort Concho	49.38
Fort Columbus	404.90	Fort Davis	340.97
Fort McHenry	410.17	Fort McIntosh	364.30
Washington Barracks, D. C.	301.00	Fort Ringgold	1,350.53
Fort Monroe, Va.	100.00	San Antonio	1,987.80
Saint Francis Barracks	100.00	Fort Hancock	143.25
Fort Barrancas	427.38	Camp del Rio	1,977.80
Mount Vernon Barracks	438.17		
Jackson Barracks	586.91	Total Department of Texas	8,230.25
Little Rock Barracks	23.11		
Newport Barracks	55.00	Arizona:	
Frankford Arsenal	299.05	Santa Fé and Marcy	221.97
Fort Myer, Va.	436.59	Fort Bayard	1,392.94
		Fort Lewis	273.95
Total Division of the Atlantic ..	5,185.68	Fort Selden	183.88
		Fort Stanton	109.40
Dakota:		Fort Union	187.25
Fort Abraham Lincoln	215.95	Fort Wingate	11,000.00
Fort Assiniboine	729.34	Fort Apache	188.60
Fort Bennett	285.53	Fort Grant	106.23
Fort Buford	609.26	Fort Huachuca	300.70
Fort Custer	584.58	Fort McDowell	51.05
Fort Keogh	183.70	Camp near Nogales	39.37
Fort Maginnis	736.32	Fort Verde	262.10
Fort Meade	3,049.82	Whipple Barracks	108.40
Fort Missoula	5,487.30	Fort Thomas	83.30
Fort Pembina	93.63		
Fort Randall	1,213.05	Total Department of Arizona	14,459.34
Fort Sisseton	231.25		
Fort Snelling	798.51	California:	
Fort Sully	11,060.00	Alcatraz Island	92.45
Fort Totten	152.59	Angel Island	688.48
Fort Yates	343.79	Benicia Barracks	100.00
Camp Poplar River	68.10	Fort Bidwell	196.28
Camp Sheridan	184.67	Fort Gaston	188.00
		Fort Mason	14.55
Total Department of Dakota	26,067.39	Fort McDermit	191.00
		Presidio	295.15
Platte:		Total Department of California ..	1,765.89
Fort Bridger	237.02		
Fort D. A. Russell	1,089.40	Columbia:	
Fort Laramie	61.70	Boisé Barracks	103.75
Fort McKinney	306.20	Fort Sherman	81.09
Fort Niobrara	655.56	Fort Klamath	44.95
Fort Omaha	142.52	Fort Spokane	621.34
Fort Robinson	2,623.81	Fort Townsend	108.73
Fort Sidney	124.26	Vancouver Barracks	251.83
Fort Washakie	788.70	Fort Walla Walla	405.95
Fort DuChesne	10,000.00		
Total Department of the Platte ..	16,019.17	Total Department of Columbia ..	1,617.58
Missouri:		Jefferson Barracks, Mo.	1,005.00
Fort Leavenworth	1,551.73	David's Island, N. Y. H.	2,790.50
Fort Hays	216.08	West Point, N. Y.	825.55
Fort Gibson	87.16	Willetts Point, N. Y.	50.00
Fort Elliott	221.59	Army and Navy Hospital at Hot Springs	900.00
Fort Lyon	206.70		
Fort Reno	340.85	Grand total	90,996.16
Fort Riley	18,134.78		
Fort Sill	24.00		

ARMY AND NAVY HOSPITAL, HOT SPRINGS, ARK.

By same act Congress granted "for one hydraulic passenger elevator for central hospital building, \$2,000, and for finishing in hard oil the inside wood-work of all buildings, painting verandas, and for painting exterior brick-work of all buildings, \$5,500; in all, \$7,500."

The elevator referred to has been supplied, and the other work done.

HOSPITAL STEWARDS' QUARTERS.

For construction of quarters for hospital stewards, including the extra-duty pay of enlisted men employed on same, Congress appropriated, February 9, 1887, \$10,000.

Of this fund the Secretary of War made the following apportionments :

Station.	Amount.	Station.	Amount.
Madison Barracks, N. Y	\$799.91	Fort Gibson, Ind. T	\$44.55
Fort McHenry, Md	157.85	Fort Reno, Ind. T	4.57
Washington Barracks, D. C	799.91	Fort Supply, Ind. T	176.57
Fort Monroe, Va	26.70	Fort Ringgold, Tex	244.70
Fort Myer, Va	800.00	Fort Hancock, Tex	387.93
Fort Ontario, N. Y	16.80	Fort Selden, N. Mex	720.30
Fort Assiniboine, Mont	799.10	Fort Stanton, N. Mex	106.50
Fort Keogh, Mont	297.87	Fort Verde, Ariz	800.00
Fort Meade, Dak	300.00	Fort Thomas, Ariz	487.93
Fort Pembina, Dak	30.10	Benicia Barracks, Cal	10.00
Fort Snelling, Minn	67.40	Fort Gaston, Cal	799.55
Fort Bridger, Wyo	800.00	Presidio of San Francisco, Cal	21.00
Fort Laramie, Wyo	111.00	Vancouver Barracks, Wash	798.83
Fort Hays, Kans	112.12		
		Total	9,721.19

SALE OF BUILDINGS.

The sale of two old buildings on site of the new post near Newport, Ky., has been authorized.

PROPERTY TRANSFERRED.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 30. } Washington, May 11, 1888.

The following joint resolutions and acts of Congress are published for the information and government of all concerned:

III.—AN ACT authorizing the Secretary of War to transfer to the trustees of the Porter Academy certain property in the city of Charleston, South Carolina.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War be, and he is hereby, authorized and directed to convey, by deed duly and properly executed to the trustees of the Porter Academy, of Charleston, South Carolina, and to their successors, the property situated in said city belonging to the Government of the United States, formerly used as an arsenal, now and for the seven years last past used for educational purposes, bounded on the north by Bee street, on the east by Ashley street, on the south by Doughty street, and on the west by President street, said conveyance to embrace a condition that said property shall be inviolably dedicated to educational purposes and no other.

SEC. 2. That the Secretary of War shall require the said trustees to file an acceptance in the War Department of said property, stipulating that the same shall be dedicated and used for all time for educational purposes, and for no other.

Approved March 8, 1888.

The action taken by the Secretary of War for the execution of the above law is not of record in this office.

POST CEMETERIES.

Under this head the transfer of remains of soldiers from Fort Myer to Fort Barrancas; from Fort Larned to Fort Leavenworth; from Fort Stockton to San Antonio; from Sweetwater, Wyo., to Fort McPherson; from La Plaza to San Diego Barracks has been duly authorized, while fence and other improvements have been made at Madison Barracks, Key West Barracks, Fort Sisseton, Fort Snelling, Fort Wingate, Whipple Barracks, Fort Canby, and Vancouver Barracks.

For this work an expenditure of about \$7,100 has been authorized.

RESERVATIONS.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 59. } Washington, September 3, 1887.

The following order from the War Department is published for the information and guidance of all concerned:

WAR DEPARTMENT,
Washington, September 2, 1887.

By authority of the President of the United States, dated September 1, 1887, the following-described tract of land in the Territory of Utah, embraced within the limits of the Uintah Indian Reservation, [created by Executive order dated October 3, 1861, and act of Congress approved May 5, 1864 (13 Stats., 63)], is proclaimed a military reservation for the post of Fort Du Chesne, viz:

"Beginning at a point two (2) miles due north of the flag-staff of Fort Du Chesne, Utah Territory, and running thence due west one (1) mile to the northwest corner; thence due south three (3) miles to the southwest corner; thence due east two (2) miles to the southeast corner; thence due north three (3) miles to the northeast corner; thence due west one (1) mile to the point of beginning. Area, six (6) square miles, 2 by 3.

"This with the proviso that 'the use and occupancy of the land in question be subject to such right, title, and interest as the Indians have in and to the same, and that it be vacated whenever the interest of the Indians shall require it, upon notice to that effect to the Secretary of War.'"

R. MACFEELEY,
Acting Secretary of War.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 61. } Washington, September 29, 1887.

The following order from the War Department is published for the information and guidance of all concerned:

WAR DEPARTMENT, Washington, September 27, 1887.

By authority of the President of the United States, dated September 26, 1887, the following-described tract of public land in the State of Colorado is proclaimed a military reservation for use of the post to be established near Denver, pursuant to authority of act of Congress approved February 17, 1857 (24 Stats., 40), viz:

The southwest quarter of the southwest quarter of section 5, township 5 south, range 68 west, Colorado.

R. MACFEELEY,
Acting Secretary of War.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 65. } Washington, October 12, 1887.

The following order from the War Department is published for the information and guidance of all concerned:

WAR DEPARTMENT, Washington, October 11, 1887.

The United States having secured a good and sufficient title, approved by the Attorney-General of the United States, to a tract of land selected by the Lieutenant-General of the Army as the site of the military post to be established near the city of

Denver, in the State of Colorado, pursuant to authority of act of Congress approved February 17, 1887 (24 Stats., 405), and the State of Colorado having ceded to the United States jurisdiction over the tract in question in accordance with the provisions of said act, the following description of the entire military reservation—in connection with the order of September 27, 1887, from this Department upon the subject, published in General Orders, No. 61, current series, from Headquarters of the Army—is hereby announced viz:

The south half ($\frac{1}{2}$) and the northwest quarter ($\frac{1}{4}$), and the south half ($\frac{1}{2}$) of the northeast quarter ($\frac{1}{4}$) of section 6, and the west half ($\frac{1}{2}$) of the southwest quarter ($\frac{1}{4}$) of section 5, all in township 5 south, range 68 west, Arrapahoe County, Colorado. Area, 640 acres.

WILLIAM C. ENDICOTT,
Secretary of War.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 77. } *Washington, December 16, 1887.*

The following order from the War Department is published for the information and guidance of all concerned:

WAR DEPARTMENT, *Washington, December 12, 1887.*

The limits of that portion of the military reservation of Fort Totten, Dakota Territory, lying within the Devil's Lake Indian Reservation, as announced in General Orders, No. 49, of 1883, Headquarters of the Army, Adjutant-General's Office, are modified as follows, viz:

Beginning at a point on the south shore of Devil's Lake due north of the summit of "Sully's Hill," and running thence due south two (2) miles; thence due west one (1) mile; thence due south five (5) miles; thence due west to the range line between ranges 65 and 66; thence north on said range line to a point due west from the old southwest corner of the tract occupied by the Devil's Lake Indian Agency buildings, *et cetera*; thence due east to the said old southwest corner; thence due south 1.575 chains; thence north $76^{\circ} 10'$ east 6.19 chains; thence north $31^{\circ} 33'$ east 1.32 chains to the old southeast corner of the tract occupied by the Devil's Lake Indian Agency buildings, *et cetera*; thence north $31^{\circ} 33'$ east on the east boundary of the agency 11.70 chains to an elm tree; thence due north on the east boundary of the agency to the meander corner on the south shore of Devil's Lake 3.75 chains; thence along the south shore of Devil's Lake to the place of beginning.

WILLIAM C. ENDICOTT,
Secretary of War.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 69. } *Washington, November 19, 1887.*

The following order from the War Department is published for the information and guidance of all concerned:

WAR DEPARTMENT, *Washington, November 19, 1887.*

By authority of the President of the United States, dated November 17, 1887, the military reservation of Camp (now Fort) Spokane, Washington Territory, originally declared by Executive order dated January 12, 1882, with boundaries as announced in General Orders, No. 4, of 1882, Headquarters Department of the Columbia, is modified to embrace a tract of public land described as follows, viz:

Beginning at a point which is south $45^{\circ} 30'$ west of a stone in the parade ground at Fort Spokane, W. T., marked "I. P.," 58.68 chains, and situated on the bank of the Spokane River, and running thence south $47^{\circ} 20'$ east 29.30 chains; thence north $65^{\circ} 03\frac{1}{2}'$ east 22.42 chains; thence north $27^{\circ} 20'$ west 7.97 chains; thence north $45^{\circ} 47'$ east 82.89 chains; thence north $31^{\circ} 27'$ west 49.03 chains; thence west 16.66 chains to the bank of the Spokane River; thence along said river to the place of beginning, *excepting* therefrom all lands within these limits heretofore granted, entered upon by settlers, or in any way reserved.

Area: 640 acres.

WILLIAM C. ENDICOTT,
Secretary of War.

GENERAL ORDERS, } HDQRS. OF THE ARMY, ADJUTANT-GENERAL'S OFFICE,
No. 4. } *Washington, January 20, 1888.*

The following order from the War Department is published for the information and guidance of all concerned :

WAR DEPARTMENT, *Washington, January 19, 1888.*

By authority of the President of the United States, dated January 17, 1888, the U. S. military reservation of Fort Buford, Dakota Territory, declared by Executive order dated August 18, 1868, is modified to embrace the following-described tract of public land, in place of the original reservation, viz:

Beginning at the northwest corner of section six (6), township 23 north, range 59 east, in the Territory of Montana, and running thence along the northern boundary line of township 23 north, range 58 east, west five (5) miles and eight hundred (800) feet to the southwest corner; thence north twenty-eight (28) miles and four thousand two hundred and twenty-four (4,224) feet to the northwest corner; thence east twenty-seven (27) miles and two thousand four hundred (2,400) feet to the northeast corner; thence south twenty-eight (28) miles and four thousand two hundred and twenty-four (4,224) feet to the southeast corner; thence west to the northeast corner of section one (1), township 23 north, range 59 east; thence west along the northern boundary line of said township to the place of beginning.

The boundaries of the modified reservation, as herein-described, will be properly marked by permanent monuments at an early date.

WILLIAM C. ENDICOTT,
Secretary of War.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, March 26, 1888.

The following proclamation of the President of the United States is published for the information and guidance of all concerned :

EXECUTIVE MANSION.

Whereas by the provisions of an act of Congress entitled "An act to provide for the disposal of abandoned and useless military reservations," approved July 5, 1884, the President of the United States whenever, in his opinion, "the lands, or any portion of them, included within the limits of any military reservation heretofore or hereafter declared, have become or shall become useless for military purposes," is directed to "cause the same or so much thereof as he may designate, to be placed under the control of the Secretary of the Interior for disposition," as provided for in said act; and

Whereas the Secretary of War has reported to me, under date of March 20, 1888, that the military reservation near Carlin, Nevada, is no longer needed for military purposes: Therefore,

I, Grover Cleveland, President of the United States, do hereby direct that the military reservation near Carlin, Nevada, declared by Executive order dated Nov. 9, 1874, and modified by Executive order dated April 7, 1875, being the same as that named in the report of the Secretary of War hereinbefore mentioned, be placed under the control of the Secretary of the Interior for disposition, as provided for in the said act of July 5, 1884, it having, in my opinion, become useless for military purposes.

Given under my hand this the 20th day of March, A. D. 1888.

GROVER CLEVELAND.

By the President.

WILLIAM C. ENDICOTT,
Secretary of War.

II. AN ACT to authorize the Secretary of War to convey to the city of Austin, Texas, a tract of land in said city for educational purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War be, and he is hereby, authorized to convey to the city of Austin, in the State of Texas, for educational purposes, a certain tract or parcel of land known as the "Arsenal Block," and lying in the southeast portion of the said city of Austin, and bounded on the east by East avenue, on the south by Third street, on the north by Waller Creek, and on the west by Red River street: *Provided,* That any conveyance made by the Secretary of War pursuant to this act shall be upon the express condition that the title to the property described shall revert to the United States whenever the city of Austin shall cease to use the same for educational purposes.

Approved March 5, 1888.

General Orders, No. 30, 1888.

Regarding the site of Fort Elliott, Tex., I desire to call attention to the following copy of report as made by the Quartermaster-General in February last, since which time nothing further has been heard in regard thereto:

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., February 29, 1888.

SIR: I have the honor to report that by articles of agreement made May 10, 1877, between Ira H. Evans, for and on behalf of the Texas Land Company, and Lieut. Col. Rufus Saxton, for and on behalf of the United States, the Government leased sections 37, 45, 55, and 67 in Block A of surveys made for the Houston and Great Northern Railroad Company, as site of Fort Elliott, Texas, for thirteen years from the 1st day of January, 1877, at an annual rent of \$1.

The fourth and fifth provisions of the lease read as follows:

"Fourth. That it is further understood and agreed between the parties hereto that the said party of the second part shall have the privilege at any time during the term of this lease to purchase from the said party of the first part, or its successors or assigns, the said demised premises, upon the following terms, namely: In the event the said party of the second part shall elect to purchase said demised premises on or before the first day of January, 1878, the price to be paid therefor shall be the sum of three dollars (\$3.00) per acre for each and every acre of the land hereby demised; but in the event the said party of the second part shall fail to avail itself of the privilege of purchasing the said demised premises, as aforesaid, on or before the first day of January, 1878, then the price to be paid therefor shall be three dollars (\$3.00) per acre for each and every acre of land hereby demised, with interest thereon, at the rate of ten per centum per annum, from the first day of January, 1878, until the execution of the deed by the said party of the first part.

"Fifth. That upon the payment of the purchase money, as aforesaid, the said party of the first part hereby binds itself, its successors and assigns, to execute and deliver to the said party of the second part a good and valid deed, conveying all its right and title and interest in and to the premises hereby demised, it being understood that in the event the said party of the second part shall elect to purchase said premises on or before the first day of January, 1878, the purchase money aforesaid shall be paid within sixty (60) days from the first of January, 1878."

Under date of the 2d February, 1888, the Secretary of War authorized the exchange of sections 37 and 45 for sections 47 and 53 during the remainder of the term covered by said lease, with equal rights and privileges which would accrue to the United States under the conditions of the said instrument.

If it be the intention of the War Department to continue this military post, it is recommended that an estimate be submitted to Congress with request for a special appropriation of the amount required for the purchase of the land.

Very respectfully, your obedient servant

S. B. HOLABIRD,
Quartermaster-General, U. S. A.

The SECRETARY OF WAR,
Washington, D. C.

Losses by fire.

Post.	Property destroyed or injured.	Post.	Property destroyed or injured.
Fort Walla Walla, Wash.	Cavalry sheds.	Boston, Mass	Quartermaster's office.
Monterey, Cal.	Officers' quarters.	Fort Apache, Ariz.	Quartermaster's store-house.
Fort McKinney, Wyo.	Commissary store-house.	Holbrook, Ariz.	Quartermaster's store-house.
Fort Leavenworth, Kans.	Stable of Troop I.	Fort Supply, Indian Ter	Band quarters.
Fort Bidwell, Cal.	Gymnasium building.	Boise Barracks, Idaho	Wash-house.
Fort Buford, Dak.	Officers' quarters.	Ter	One troop barrack.
Alcatraz Island, Cal.	Old engineer barracks and quarters for two married soldiers.	Fort Walla Walla, Wash.	

In connection with this report a statement, A, is submitted, compiled from the latest data on file, showing the actual expenditures made during the fiscal year on account of barracks and quarters at the various posts and stations, the particular building repaired, etc.; also a state-

ment, B, showing property rented by the Quartermaster's Department and in service June 30, 1888.

A statement, C, is also submitted herewith showing location, size, and how occupied of each of the military reservations in the several States and Territories.

C. G. SAWTELLE,

Deputy Quartermaster-General, U. S. Army.

QUARTERMASTER-GENERAL, U. S. ARMY.

1.—Statement, compiled from reports thus far received, showing expenditures actually made on account of repair and construction of public buildings at various posts during fiscal year ending June 30, 1888.

DIVISION OF THE MISSOURI.

DEPARTMENT OF THE MISSOURI.

Post.	Designation.	Cost.	Total.
Fort Lyon, Colo.....	Officers' quarters No. 1.....	\$10	
	Officers' quarters No. 2.....	4	
	Officers' quarters No. 3.....	6	
	Officers' quarters No. 4.....	2	
	Officers' quarters No. 5.....	5	
	Officers' quarters No. 6.....	6	
	Officers' quarters No. 7.....	9	
	Officers' quarters No. 8.....	6	
	Officers' quarters No. 9.....	6	
	Officers' quarters No. 10.....	8	
	Officers' quarters No. 11.....	7	
	Officers' quarters No. 12.....	22	
	Officers' quarters No. 13.....	10	
	Barracks 1, A.....	17	
	Barracks 2, A.....	2	
	Barracks 3, A.....	17	
	Barracks 4, A.....	20	
Denver, Colo.....	Barracks E.....	24	\$198
	Headquarters, etc.....	15	
	Hutting troops.....		
	Office building.....	15	
	Officers' quarters No. 3.....	5	
	Barracks No. 4.....	25	
	Store-rooms No. 6.....	40	
	Barracks No. 8.....	35	
	Officers' quarters No. 9.....	3	
	Officers' quarters No. 11.....	5	
	Gymnasium.....	20	
	Officers' quarters No. 13.....	10	
	Officers' quarters No. 17.....	25	
	Officers' quarters No. 21.....	20	
	Guard-house.....	5	
	Ice-house.....	5	
	Officers' quarters.....	15	
Fort Crawford, Colo.....	Bakery.....	25	7,500
	Quarters No. 35.....	10	
Fort Lewis, Colo.....	Barracks No. 1.....	45	278
	Barracks No. 2.....	15	
	Barracks No. 3.....	80	
	Barracks No. 4.....	80	
	Barracks No. 5.....	12	
	Barracks No. 7.....	15	
	Barracks No. 8.....	12	
	Officers' quarters No. 11.....	12	
	Officers' quarters No. 14.....	15	
	Officers' quarters No. 15.....	15	
	Officers' quarters No. 16.....	12	
	Officers' quarters No. 17.....	10	
	Officers' quarters No. 18.....	20	
	Officers' quarters No. 19.....	10	
	Officers' quarters No. 20.....	80	
	Officers' quarters No. 21.....	8	
	Officers' quarters No. 22.....	15	
	Officers' quarters No. 23.....	9	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF THE MISSOURI—Continued.

Post.	Designation.	Cost.	Total.
Fort Lewis, Colo.—Continued.....	Store-house No. 30.....	\$10	
	Store-house No. 32.....	25	
	Post hall.....	5	
	Officers' quarters No. 36.....	21	
	Administration building.....	15	
	Quartermaster's corral.....	10	
	School-building.....	62	
	Commissary store-house (built).....	2, 870	
	Guard-house (built).....	2, 636	
	Magazine (built).....	731	
Fort Gibson, Ind. T.....	Officers' quarters No. 1.....	33	\$6, 810
	Officers' quarters No. 2.....	27	
	Officers' quarters No. 3.....	68	
	Barracks No. 4.....	101	
	Guard-house.....	12	
	Officers' quarters No. 6.....	465	
	Quartermaster's store-house.....	14	
	Subsistence store-house.....	32	
	Officers' quarters No. 13.....	48	
	Non-commissioned staff quarters.....	44	
	Quartermaster's stables.....	133	
	General repairs.....	25	
Fort Hays, Kans.....	Officers' quarters Nos. 10 and 11.....	16	1, 000
	Barracks No. 13.....	16	
	Barracks No. 14.....	19	
	Barracks No. 15.....	19	
	Band quarters.....	32	
Fort Sill, Ind. T.....	Officers' quarters No. 1.....	35	102
	Officers' quarters No. 2.....	35	
	Officers' quarters No. 3.....	35	
	Officers' quarters No. 4.....	300	
	Officers' quarters No. 5.....	300	
	Officers' quarters No. 6.....	475	
	Officers' quarters No. 7.....	475	
	Officers' quarters No. 8.....	475	
	Officers' quarters No. 9.....	475	
	Officers' quarters No. 11.....	475	
	Barracks No. 12.....	100	
	Barracks No. 13.....	235	
	Barracks No. 14.....	100	
	Barracks No. 15.....	150	
	Office No. 16.....	10	
	Library, etc.....	350	
	Guard-house.....	25	
	Bakery.....	10	
	Store-house No. 22.....	50	
	Store-house No. 23.....	50	
	Forage house.....	100	
	Chapel.....	25	
	Cavalry corrals.....	100	
	Store-house No 43.....	100	
	Quartermaster's corrals.....	175	
Fort Riley, Kans.....	Officers' quarters No. 1.....	136	4, 680
	Officers' quarters No. 3.....	7	
	Officers' quarters No. 5.....	13	
	Officers' quarters No. 7.....	5	
	Officers' quarters No. 9.....	11	
	Officers' quarters No. 8.....	6	
	Officers' quarters No. 10.....	1	
	Officers' quarters No. 12.....	7	
	Officers' quarters No. 11.....	5	
	Officers' quarters No. 13.....	26	
	Officers' quarters No. 15.....	24	
	Officers' quarters No. 14.....	1	
	Officers' quarters No. 16.....	6	
	Officers' mess.....	10	
	Office building.....	14	
	Sergeants' quarters.....	4	
	Guard-house.....	144	
	Barracks No. 7.....	98	
	Barracks No. 9.....	70	
	Barracks No. 8.....	68	
	Barracks No. 10.....	67	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF THE MISSOURI—Continued.

Post.	Designation.	Cost.	Total.
Fort Riley, Kans.—Continued	Barracks No. 11	\$1	
	Barracks No. 13	1	
	Barracks No. 12	5	
	Barracks No. 14	1	
	Stables No. 1	22	
	Stables No. 2	22	
	Stables No. 3	24	
	Stables No. 4	7	
	Stables No. 5	1	
	Quartermaster's store-house	62	
	Commissary store-house	133	
	Chapel	344	
	Bakery	83	
	Employés' quarters	10	
Fort Reno, Ind. T	Officers' quarters Nos. 1 and 2	81	\$1,439
	Officers' quarters Nos. 3 and 4	80	
	Officers' quarters No. 5	141	
	Officers' quarters Nos. 6 and 7	81	
	Officers' quarters Nos. 8 and 9	80	
	Officers' quarters Nos. 10 and 11	80	
	Officers' quarters No. 12	81	
	Officers' quarters No. 13	24	
	Barracks No. 14	147	
	Barracks No. 15	130	
	Barracks No. 16	9	
	Barracks No. 17	130	
	Company kitchen No. 18	9	
	Non-commissioned staff quarters	530	
	Band quarters	708	
	Barracks No. 21	149	
	Guard-house	9	
	Adjutant's office	85	
	Barracks No. 24	135	
	Company kitchen No. 25	9	
	Barracks No. 26	135	
	Company kitchen No. 27	9	
	Stables	100	
	Officers' quarters Nos. 43 and 44	30	
	Officers' quarters Nos. 45 and 46	30	
Fort Sheridan, Ill.	Hutting troops		3,002
Fort Supply, Ind. T	Officers' quarters No. 1	31	7,500
	Officers' quarters Nos. 2 to 9	190	
	Barracks No. 10	26	
	Barracks Nos. 11 to 13	78	
	Barracks No. 14	26	
	Barracks Nos. 15 and 16	53	
	Headquarters building	1	
	Bakery	59	
	Married men's quarters	13	
	Guard-house	12	
	Smith's shop	1	
	Cavalry stables Nos. 35 and 36	27	
	Cavalry stables No. 37	15	
	Quartermaster's office	3	
	Employés' quarters	1	
	Quartermaster's stables	20	
	Meat-shop	5	
	Quarters Nos. 60 and 62	7	
	School	3	
	Bath-house	123	
	Coal-sheds built	1,311	
	Quarters for married men	339	
	General repairs	927	
Fort Leavenworth, Kans.	Officers' quarters, frame, No. 1	212	3,271
	Officers' quarters, log, No. 2	98	
	Officers' quarters, log, No. 3	213	
	Officers' quarters, frame, No. 4	386	
	Officers' quarters, frame, No. 5	270	
	Officers' quarters, brick, No. 6	89	
	Officers' quarters, brick, No. 7	196	
	Officers' quarters, brick, No. 8	327	
	Officers' quarters, frame, No. 9	416	
	Officers' quarters, frame, No. 10	263	
	Officers' quarters, frame, No. 11	127	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF THE MISSOURI—Continued.

Post.	Designation.	Cost.	Total.
Fort Leavenworth, Kans.—Continued.	Officers' quarters, frame, No. 12.....	\$96	
	Officers' quarters, frame, No. 13.....	24	
	Academic building.....	16	
	Post-office building, etc.....	213	
	Barracks No. 16.....	239	
	Barracks No. 17.....	86	
	Barracks No. 18.....	90	
	Barracks, etc., No. 20.....	128	
	Officers' quarters No. 21.....	916	
	Officers' quarters No. 24.....	126	
	Officers' quarters No. 25.....	112	
	Officers' quarters No. 26.....	86	
	Officers' quarters No. 27.....	94	
	Officers' quarters No. 28.....	24	
	Officers' quarters No. 29.....	83	
	Officers' quarters No. 30.....	74	
	Officers' quarters No. 31.....	101	
	Officers' quarters No. 32.....	40	
	Officers' quarters No. 33.....	42	
	Officers' quarters No. 34.....	64	
	Officers' quarters No. 35.....	40	
	Quartermaster's stables No. 36.....	27	
	Commissary sergeants' quarters.....	16	
	Engineers' quarters.....	35	
	Company bath-house.....	72	
	Guard bath-house.....	12	
	Guard-house.....	86	
	Cavalry stables.....	30	
	Shed stables.....	495	
	Battery stables.....	28	
	Fences.....	112	
	Servants' quarters.....	25	
Fort Leavenworth Depot	Commanding general's quarters.....	2,603	\$6,229
	Medical director's quarters.....	12	
	Chief paymaster's quarters.....	17	
	Inspector rifle practice quarters.....	41	
	Assistant adjutant-general's quarters.....	33	
	Assistant judge-advocate's quarters.....	73	
	Inspector-general's quarters.....	31	
	Chief commissary quarters.....	67	
	Aide-de-camp quarters.....	17	
	Acting engineer officers' quarters.....	105	
	Chief ordnance quarters.....	33	
	Depot quartermaster's quarters.....	95	
	Chief quartermaster's quarters.....	229	
	Commissary store-house.....	389	
	Headquarters building.....	37	
	Office depot quartermaster.....	2	
	Depot workshops.....	8	
	Depot stables.....	32	
	Depot granary.....	16	
	School building.....	4	
	Quarters ordnance detachment.....	3	
Fort Elliott, Tex.....	Officers' quarters No. 1.....	37	3,847
	Officers' quarters No. 2.....	30	
	Officers' quarters No. 3.....	40	
	Officers' quarters No. 4.....	34	
	Officers' quarters No. 5.....	48	
	Officers' quarters No. 6.....	55	
	Officers' quarters No. 7.....	61	
	Quartermaster's store-house.....	7	
	Quartermaster's office.....	3	
	Subsistence store-house.....	70	
	Mess-rooms.....	28	
	Barracks No. 12.....	97	
	Barracks No. 13.....	82	
	Barracks No. 14.....	108	
	Barracks No. 15.....	99	
	Office.....	6	
	Chapel.....	6	
	Guard-house.....	479	
	Sergeant's quarters.....	4	1,294
	Total Department of the Missouri.....		47,123

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF TEXAS.

Post.	Designation.	Cost.	Total.
Fort Brown, Tex.....	Commanding officers' quarters	\$28	\$3,475
	Officers' quarters Nos. 1 and 2.....	30	
	Officers' quarters Nos. 3 and 4.....	28	
	Officers' quarters Nos. 5 and 6.....	34	
	Officers' quarters Nos. 7 and 8.....	37	
	Officers' quarters Nos. 9 and 10.....	29	
	Officers' quarters Nos. 11 and 12.....	43	
	Barracks No. 23.....	7	
	Barracks No. 24.....	1,423	
	Barracks No. 25.....	23	
	Guard-house	117	
	Commissary sergeants' quarters	32	
	Cavalry stables	16	
	Ordnance sergeants' quarters	22	
	Barracks No. 53.....	139	
	Cavalry stables	19	
	Shops built.....	1,448	
Fort Clark, Tex	Officers' quarters No. 1.....	26	4,248
	Officers' quarters Nos. 2 and 3.....	76	
	Officers' quarters No. 4.....	55	
	Officers' quarters Nos. 6 and 7.....	30	
	Officers' quarters Nos. 8 and 9.....	28	
	Officers' quarters Nos. 10 and 11.....	20	
	Officers' quarters Nos. 12 and 13.....	27	
	Officers' quarters Nos. 14 and 15.....	22	
	Officers' quarters Nos. 16 and 17.....	74	
	Officers' quarters Nos. 18 and 19.....	69	
	Officers' quarters No. 20.....	85	
	Officers' quarters Nos. 21 and 22.....	169	
	Officers' quarters Nos. 23 and 24.....	168	
	Officers' quarters Nos. 25 and 26.....	27	
	Officers' quarters No. 27.....	17	
	Officers' quarters No. 28.....	178	
	Barracks No. 1.....	161	
	Barracks No. 2.....	22	
	Barracks No. 3.....	1,000	
	Barracks No. 4.....	207	
	Barracks No. 5.....	7	
	Barracks No. 6.....	374	
	Barracks No. 7.....	374	
	Barracks No. 8.....	374	
	Barracks No. 9.....	374	
	Barracks No. 10.....	59	
	Band quarters.....	18	
	Bakery.....	24	
	Magazine.....	16	
	Forage-house.....	72	
	Commissary store-house.....	40	
	Cavalry stables.....	55	
Camp Del Rio, Tex	None reported		4,248
Fort Bliss, Tex	Officers' quarters No. 1.....	165	
Fort Bliss, Tex	Officers' quarters No. 2.....	167	1,715
	Officers' quarters No. 3.....	165	
	Officers' quarters No. 4.....	190	
	Barracks No. 6.....	52	
	Corral buildings.....	965	
Camp Eagle Pass, Tex	Guard-house	11	46
	Cavalry stables	32	
Fort Concho, Tex	Officers' quarters.....	14	85
	Commanding officers' quarters	50	
Fort Concho, Tex	Officers' quarters No. 2.....	33	
	Officers' quarters No. 3.....	33	
	Officers' quarters No. 4.....	33	
	Officers' quarters No. 5.....	33	
	Officers' quarters No. 6.....	33	
	Officers' quarters No. 7.....	40	
	Officers' quarters No. 8.....	33	
	Officers' quarters No. 9.....	33	
	Officers' quarters No. 10.....	33	
	Officers' quarters No. 11.....	33	
	Officers' quarters No. 12.....	33	
	Company quarters No. 14.....	85	
	Company quarters No. 15.....	85	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF TEXAS—Continued.

Post.	Designation.	Cost.	Total.
Fort Concho, Tex.—Continued	Company quarters No. 16	\$85	\$1,768
	Company quarters No. 17	85	
	Company quarters No. 18	85	
	Company quarters No. 19	85	
	Company quarters No. 20	85	
	Company quarters No. 21	85	
	Guard-house No. 22	20	
	Quartermaster's store-house No. 23	25	
	Office building	30	
	Commissary store-house	200	
	Workshops	20	
	Corral No. 1	70	
	Corral No. 2	70	
	Corral No. 3	70	
	Corral No. 4	70	
	Corral No. 5	70	
	Bakery	23	
San Antonio, Tex	Barracks sidewalks	110	191
	Quartermaster's stables	81	
Fort Hancock, Tex	Commanding officers' quarters	84	1,949
	Officers' quarters No. 2	58	
	Officers' quarters No. 3	57	
	Officers' quarters No. 4	58	
	Guard-house	50	
	Bakery	20	
	Barracks No. 9	448	
	Cavalry stables No. 10	26	
	Granary	500	
	Post quartermaster sergeants' quarters	313	
	Commissary sergeants' quarters	313	
	First sergeants' quarters	22	
Fort Ringgold, Tex	Officers' quarters Nos. 1 and 2	106	1,684
	Officers' quarters Nos. 3 and 4	167	
	Officers' quarters No. 5	160	
	Officers' quarters Nos. 6 and 7	8	
	Officers' quarters Nos. 8 and 9	167	
	Barracks No. 14	144	
	Barracks No. 15	144	
	Barracks No. 17	144	
	Barracks No. 18	144	
	Bake-house	40	
	Commissary-sergeants' quarters	44	
	Ordnance sergeants' quarters	84	
	Officers' quarters No. 41 and 42	88	
	General repairs	184	
Camp Pena, Colo	Mess-room built		282
Fort McIntosh, Tex	Administration building	115	1,463
	Officers' quarters No. 5	20	
	Officers' quarters No. 6	13	
	Officers' quarters No. 8	38	
	Officers' quarters No. 10	6	
	Officers' quarters No. 11	42	
	Officers' quarters No. 13	431	
	Barracks No. 15	204	
	Barracks No. 16	184	
	Barracks No. 17	206	
	Subsistence store-house	22	
	Commissary sergeants' quarters	160	
	Fences	22	
Fort Davis, Tex	Officers' quarters No. 2	25	1,463
	Officers' quarters No. 3		
	Officers' quarters No. 4	35	
	Officers' quarters No. 5	185	
	Officers' quarters No. 6	350	
	Officers' quarters No. 7	75	
	Officers' quarters No. 8	75	
	Officers' quarters No. 9	51	
	Officers' quarters No. 12	95	
	Officers' quarters No. 13	50	
	Officers' quarters No. 14	40	
	Officers' quarters No. 15	1	
	Officers' quarters No. 17	40	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF TEXAS—Continued.

Post.	Designation.	Cost.	Total.
Fort Davis, Tex.—Continued.....	Barracks No. 20.....	\$238	
	Barracks No. 21.....	185	
	Barracks No. 22.....	225	
	Barracks No. 24.....	165	
	Barracks No. 25.....	350	
	Quartermaster's corral and shops.....	130	
	Ordnance store-house.....	4	
			\$2,367
	Total Department of Texas.....		19,188

DEPARTMENT OF THE PLATE.

Fort Omaha, Nebr.....	One barrack built from old material.....	1,675	2,500
	Officers' quarters repaired.....	100	
	Non-commissioned staff officers' quarters repaired.....	200	
	Barracks.....	25	
	Fences.....	600	
Fort Laramie, Wyo.....	Walks.....		1,300
	Officers' quarters A.....	30	
	Officers' quarters No. 1.....	40	
	Officers' quarters No. 2.....	35	
	Officers' quarters No. 3.....	31	
	Officers' quarters No. 4.....	2	
	Officers' quarters No. 5.....	8	
	Officers' quarters No. 6.....	4	
	Officers' quarters No. 7.....	32	
	Officers' quarters No. 8.....	32	
	Officers' quarters No. 9.....	37	
	Officers' quarters No. 10.....	13	
	Officers' quarters No. 11.....	37	
	Officers' quarters No. 12.....	50	
	Officers' quarters No. 13.....	13	
	Officers' quarters No. 16.....	13	
	Office building.....	3	
	Band quarters.....	10	
	Men's rooms and kitchens.....	6	
	Guard-house.....	10	
	Stalk.....	3	
	Company quarters.....	30	
	Company quarters No. 32.....	7	
	Communitary store-house.....	33	
Fort Douglas, Utah.....	Ice-house.....	13	1,300
	Quartermaster's store-house.....	300	
	Shops.....	6	
	Tenmasters' quarters.....	50	
	Saw-mill shelter.....	400	
	Non-commissioned sergeants' quarters.....	8	
	Commanding officers' quarters.....	17	
	Officers' quarters Nos. 1 to 30.....	405	
	Officers' quarters Nos. 21 and 22.....	100	
	Officers' quarters Nos. 23 and 24.....	83	
Fort Du Chasse, Utah.....	Barracks.....	1,700	2,610
	Band quarters.....	25	
	Guard-house.....	95	
	Gun-shed.....	13	
	Chapel.....	35	
Fort Du Chasse, Utah.....	Barracks No. 10.....	900	10,000
	Barracks No. 11 (built).....	2,732	
	Barracks No. 12.....	834	
	Barracks No. 13 (built).....	1,304	
	Barracks No. 14 (built).....	1,307	
	Barracks No. 15 (built).....	2,000	
Fort McKinney, Wyo.....	Officers' quarters Nos. 1 and 2.....	65	
	Officers' quarters No. 3.....	77	
	Officers' quarters Nos. 4 and 5.....	120	
	Officers' quarters No. 6.....	40	
	Officers' quarters Nos. 7 and 8.....	81	
	Officers' quarters No. 9.....	32	
	Officers' quarters No. 10.....	33	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF THE PLATTE—Continued.

Post.	Designation.	Cost.	Total.
Fort McKinney, Wyo.—Continued	Officers' quarters No. 11.....	\$333	
	Officers' quarters No. 12.....	7	
	Officers' quarters Nos. 13 and 14.....	72	
	Officers' quarters No. 15.....	18	
	Officers' quarters Nos. 16 and 17.....	34	
	Officers' quarters Nos. 19 and 20.....	66	
	Cavalry barracks No. 23.....	146	
	Cavalry barracks No. 25.....	128	
	Infantry barracks No. 27.....	127	
	Infantry barracks No. 28.....	141	
	Infantry barracks No. 29.....	95	
	Headquarters building.....	202	
	Commissary sergeant's quarters.....	25	
	Cavalry stables Nos. 27 and 28.....	14	
	Cavalry stables, Nos. 29 and 30.....	44	
	Cavalry stables, No. 49.....	35	
	Chapel.....	5	
Fort Robinson, Nebr.....	Officers' quarters No. 2.....	(*)	\$1,972
Fort D. A. Russell, Wyo.....	Officers' quarters No. 12.....		
	Officers' quarters Nos. 1 to 4.....	80	
	Officers' quarters Nos. 5 and 6.....	20	
	Officers' quarters No. 9.....	47	
	Officers' quarters No. 10.....	20	
	Officers' quarters No. 11.....	12	
	Officers' quarters No. 12.....	25	
	Officers' quarters No. 13.....	50	
	Officers' quarters No. 14.....	10	
	Officers' quarters No. 15.....	20	
	Officers' quarters No. 16.....	5	
	Officers' quarters No. 17.....	30	
	Officers' quarters No. 18.....	32	
	Officers' quarters No. 19.....	10	
	Officers' quarters No. 20.....	10	
	Officers' quarters No. 22.....	28	
	Officers' quarters No. 23.....	12	
	Officers' quarters No. 24.....	25	
	Officers' quarters No. 21.....	410	
	Officers' quarters Nos. 25 and 27.....	15	
	Officers' quarters No. 26.....	80	
	Administration building.....	1,000	
	School-room.....	40	
	Subsistence store-house.....	64	
	Barracks No. 37.....	105	
	Barracks No. 38.....	40	
	Barracks No. 39.....	65	
	Guard-house.....	100	
	Barracks Nos. 43, 44, 45.....	120	
	Non-commissioned staff quarters.....	75	
	Barracks No. 61.....	25	
	Bake-house.....	20	
	Sidewalks.....	336	
	Fences.....	30	
Fort Sidney, Nebr.....	Roofs of buildings patched, cost not stated.		2,961
Fort Washakie, Wyo.....	Officers' quarters No. 1.....	156	
	Officers' quarters No. 2.....	156	
	Officers' quarters No. 3.....	20	
	Officers' quarters No. 4.....	737	
	Office building.....	118	
	Barracks No. 5.....	326	
	Barracks No. 6.....	442	
	Barracks No. 7.....	72	
	Non-commissioned staff quarters.....	118	
	Telegraph office.....	22	
	Guard-house.....	62	
	Smith's shop.....	40	
	Quartermaster's store-house.....	26	
	Commissary store-house.....	486	
	Saw-mill.....	38	
	Stables No. 32.....	12	
	Stables No. 33.....	12	
	Pump-house.....	60	
	Guard-room.....	20	

* Not stated.

REPORT OF THE SECRETARY OF WAR.

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF THE PLATTE—Continued.

Post.	Designation.	Cost.	Total.
Fort Washakie, Wyo.—Continued	Magazine	\$3	\$3,006
	General repairs	80	
Omaha Depot, Nebr.....	None reported.....		185
Cheyenne Depot, Wyo.....	Officers' quarters No. 1	49	
	Officers' quarters No. 2	20	
	Officers' quarters No. 3	95	
	Officers' quarters No. 4	6	
	Ordnance store-room	15	
Fort Niobrara, Nebr.....	Officers' quarters No. 2	111	6,145
	Officers' quarters Nos. 3 and 4	56	
	Officers' quarters Nos. 5 and 6	80	
	Officers' quarters Nos. 7 and 8	72	
	Officers' quarters Nos. 9 and 10	70	
	Officers' quarters Nos. 11 and 12	83	
	Officers' quarters Nos. 13 and 14	77	
	Officers' quarters Nos. 15 and 16	83	
	Officers' quarters Nos. 17 and 18	79	
	Officers' quarters Nos. 19 and 20	67	
	Officers' quarters No. 1	44	
	Administration building	75	
	Barracks built	3,302	
	Barracks No. 2	92	
	Barracks No. 3	212	
	Barracks No. 4	114	
	Barracks No. 5	119	
	Barracks No. 6	109	
	Barracks No. 7	92	
	Barracks No. 8	88	
	Barracks No. 9	90	
	Barracks No. 1	74	
	Barracks No. 2	21	
	Post quartermaster-sergeant's quarters	15	
	Ordnance sergeant's quarters	15	
	Stable No. 5	56	
	Guard-house	148	
	Engine shelter	64	
	General repairs	394	
	Tools	103	
	Sidewalks	93	
	Fences	52	
Fort Bridger, Wyo	Officers' quarters No. 1*		6,272
	Officers' quarters Nos. 2 to 6*		
	Officers' quarters Nos. 7 and 8*		
	Commanding officer's quarters*		
	Reading-room*		
	Band quarters*		
	Barracks Nos. 9 and 14*		
	Barracks No. 13*		
	Guard-house, built*		
	Barracks No. 29*		
	Quartermaster-sergeant's quarters*		
	Bake-house*		
	Ice-house*		
	Office building*		
	Engine-house*		
	Stable*		
	Commissary store-house*		
	Barracks built	5 000	36,917
	Water-wagon house, built	887	
	Bath-house built	375	
	Total Department of the Platte.....		

DEPARTMENT OF DAKOTA.

Fort Lincoln	Wagon and gun shed	235	376
Ordnance depot, Dak	Commanding officer's quarters	18	
	Store-house	122	

* Not stated.

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF DAKOTA—Continued.

Post.	Designation.	Cost.	Total.
Fort Pembina, Dak.	Officers' quarters Nos. 1 and 2	\$714	
	Officers' quarters Nos. 3 and 4	315	
	Officers' quarters Nos. 5 and 6	314	
	Officers' quarters Nos. 7 and 8	314	
	Non-commissioned staff officers' quarters	100	
	Barracks No. 1	251	
	Barracks No. 2	251	
	Company kitchen No. 1	25	
	Company kitchen No. 2	25	
	Wash-house Nos. 1 and 2	305	
	Guard-house	66	
	Granary	30	
	Coal-shed (built)	725	
	Shops (built)	221	
Fort Meade, Dak.	Officers' quarters Nos. 1 to 12	760	\$3,236
	Barracks	335	
	Stables	103	
	Ice-houses	25	
	Other buildings	496	
	Fences	26	
	Sidewalks	26	
Fort Maginnis, Mont.	Commanding officers' quarters	9	1,771
	Officers' quarters Nos. 1, 2, and 3	55	
	Officers' quarters Nos. 5, 6, 7	31	
	Barracks Nos. 8, 9, 10	350	
	Library, etc.	1	
	Chapel, etc.	18	
	Office building	7	
	Bakery	294	
	Guard-house	11	
	Store-houses	35	
	Shops	2	
	Employés' quarters	9	
	Non-commissioned staff officers' quarters	29	
	Non-commissioned staff officers' quarters (built)	600	
	Saw-mill	2	
	Harness-house	3	
	Stables	76	
	Ice-house	2	
Fort Mission, Mont.	Officers' quarters No. 1	42	1,334
	Officers' quarters No. 2	46	
	Officers' quarters No. 3	37	
	Officers' quarters No. 4	39	
	Officers' quarters No. 5	34	
	Officers' quarters No. 6	42	
	Officers' quarters No. 7	43	
	Barracks No. 8	28	
	Barracks No. 9	33	
	Barracks No. 10	35	
	Barracks No. 11	13	
	Non-commissioned staff officer's quarters	30	
	Guard-house	13	
Fort Yates, Dak.	Officers' quarters No. 2	40	435
	Officers' quarters No. 3	37	
	Officers' quarters No. 4	37	
	Officers' quarters Nos. 5 and 7	82	
	Officers' quarters Nos. 6 and 8	82	
	Officers' quarters Nos. 9 and 11	80	
	Officers' quarters Nos. 10 and 12	80	
	Officers' quarters No. 13	36	
	Officers' quarters Nos. 14 and 16	80	
	Officers' quarters No. 15	33	
	Officers' quarters No. 18	33	
	Barracks Nos. 22 and 23	294	
	Headquarters building	21	
	Barracks Nos. 24 and 26	294	
	Bakery	111	
	Non-commissioned staff officers' quarters	33	
	Guard-house	36	
	Cavalry barracks Nos. 34 and 36	130	
	Cavalry stables	196	
			1,735

REPORT OF THE SECRETARY OF WAR.

Compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF DAKOTA—Continued.

St.	Designation.	Cost.	Total.
	Commanding officer's quarters	\$562	
	Officers' quarters Nos. 2 and 3	512	
	Officers' quarters Nos. 4 and 5	512	
	Officers' quarters Nos. 6 and 7	117	
	Officers' quarters Nos. 8 and 9	107	
	Officers' quarters Nos. 10 and 11	47	
	Officers' quarters Nos. 14 and 15	91	
	Officers' quarters Nos. 16 and 17	91	
	Officers' quarters Nos. 18 and 19	120	
	Barracks Nos. 20 and 21	300	
	Barracks Nos. 22 and 23	250	
	Barracks No. 24	100	
	Barracks No. 25	100	
	Non-commissioned staff officers' quarters Nos. 27 and 28	35	
	Non-commissioned staff officers' quarters Nos. 29 and 30	125	
	Non-commissioned staff officers' quarters (built) No. 31	830	
	Headquarters building	24	
	Library and school	40	
	Amusement hall	20	
	Quartermaster's office	50	
	Bake-house	15	
	Guard-house	131	
	Cavalry stables	50	
	Saw-mill	20	
	Employees' quarters built	200	
			\$4, 449
	Commanding officer's quarters	26	
	Officers' quarters, 10 sets	450	
	Officers' quarters No. 13	9	
	Chapel and school-room	6	
	Guard-house	5	
	Headquarters building	4	
	Store-house No. 45	15	
	Store-house No. 46	14	
	Shops	3	
	Band quarters	95	
	Cavalry barracks No. 19	12	
	Cavalry barracks Nos. 20 and 21	200	
	Infantry barracks No. 22	100	
	Employees' quarters	22	
	Quartermaster's stables	55	
	Cavalry stables No. 53	6	
	Cavalry stables (old)	24	
	Smith's shops	12	
	Guard-house stables	652	
	Sergeant major's quarters	102	
	Quartermaster-sergeant's quarters	46	
	Telegraph office	7	
	Bakery	16	
	Pump-house	45	
	Ice-house	17	
	Lime-house, etc	5	
	Fences, etc	105	
			2, 143
	Officers' quarters No. 1	25	
	Officers' quarters No. 2	29	
	Officers' quarters No. 3	25	
	Officers' quarters No. 4	2	
	Barracks No. 6	14	
	Stable	10	
	Non-commissioned staff officers' quarters No. 15	85	
	Non-commissioned staff officers' quarters No. 16	59	
	Store-room	1	
	Employees' quarters	2	
Mont	Officers' quarters No. 15	380	
	Barracks No. 5	385	
	Guard-house	8	
	Chapel, etc	10	
	Office	28	
	Store house	6	
			259
			817

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF DAKOTA—Continued.

Post.	Designation.	Cost.	Total.
Fort Keogh, Mont.....	Officers' quarters Nos. 1 and 2.....	\$120	
	Officers' quarters Nos. 3 and 4.....	47	
	Officers' quarters Nos. 5 and 6.....	42	
	Officers' quarters Nos. 7 and 8.....	60	
	Officers' quarters Nos. 9 and 10.....	39	
	Officers' quarters Nos. 11 and 12.....	71	
	Officers' quarters Nos. 13 and 14.....	130	
	Commanding officer's quarters.....	80	
	Officers' quarters Nos. 15 and 16.....	76	
	Officers' quarters Nos. 17 and 18.....	37	
	Officers' quarters Nos. 19 and 20.....	54	
	Officers' quarters Nos. 21 and 22.....	48	
	Officers' quarters Nos. 23 and 24.....	33	
	Officers' quarters Nos. 25 and 26.....	54	
	Office building.....	75	
	Barracks No. 17.....	220	
	Barracks No. 18.....	225	
	Barracks No. 19.....	141	
	Barracks No. 20.....	64	
	Barracks No. 21.....	172	
	Chapel.....	37	
	Non-commissioned staff officers' quarters.....	6	
	Non-commissioned staff officers' quarters.....	60	
	Ice-house.....	16	
	Subsistence store-house.....	21	
	Quartermaster's store-house.....	178	
	Quartermaster's stable.....	62	
	Quartermaster's stable (built).....	1,285	
	Cavalry stable.....	160	
	Coal shed.....	20	
	Employés' quarters No. 49.....	25	
	Employés' quarters No. 50.....	7	
	Employés' quarters No. 59.....	74	
	Teamsters' quarters.....	59	
	Guard-house (built).....	5,228	
	Shops.....	62	
			\$9,127
Fort A. Lincoln, Dak.....	Barracks.....	(*)	
Fort Sully, Dak.....	Commanding officer's quarters.....	18	
	Officers' quarters No. 2.....	36	
	Officers' quarters No. 3.....	41	
	Officers' quarters Nos. 4 and 6.....	4	
	Officers' quarters Nos. 5 and 7.....	30	
	Officers' quarters Nos. 8 and 10.....	46	
	Officers' quarters No. 9.....	17	
	Officers' quarters No. 11.....	62	
	Officers' quarters Nos. 12 and 14.....	26	
	Officers' quarters No. 15.....	17	
	Officers' quarters No. 43.....	30	
	Officers' quarters No. 16.....	27	
	Officers' quarters No. 42.....	38	
	Commissary store-house.....	37	
	Barracks (built).....	1,750	
			2,169
Fort Randall, Dak.....	Officers' quarters No. 1.....	102	
	Officers' quarters No. 2.....	40	
	Officers' quarters No. 3.....	37	
	Officers' quarters No. 4.....	24	
	Officers' quarters No. 5.....	24	
	Officers' quarters No. 6.....	43	
	Officers' quarters No. 7.....	22	
	Officers' quarters No. 8.....	15	
	Officers' quarters No. 9.....	43	
	Officers' quarters No. 10.....	106	
	Officers' quarters No. 11.....	97	
	Officers' quarters No. 12.....	17	
	Barracks No. 1.....	200	
	Barracks No. 2.....	352	
	Barracks No. 3.....	90	
	Barracks No. 4.....	206	
	Barracks No. 5.....	87	
	Ordnance sergeants' quarters.....	22	
	Post quartermaster's quarters.....	25	
	Employés' quarters No. 4.....	10	
	Employés' quarters No. 6.....	9	
	Employés' quarters Nos. 7 and 8.....	48	

* Not stated.

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF DAKOTA—Continued.

Post.	Designation.	Cost.	Total.
Fort Randall, Dak.—Continued.....	Married soldiers' quarters	\$3	
	Office	113	
	Guard-house	10	
	Bakery	12	
	Magazine	3	
	Bowling alley	3	
Camp Sheridan, Wyo.....	Barracks No. 1	79	\$1,733
	Store-house	10	
	Cavalry stable	13	
	Quartermaster's stable	8	
	Office (built)	505	
	Officers' quarters (built)	2,635	
Saint Paul, Minn	None reported		3,245
Camp Poplar River, Mont	Officers' quarters No. 1	14	
	Officers' quarters No. 2	42	
	Officers' quarters No. 7	37	
	Store-house	105	
	Library, etc	22	
	Quartermaster's store-house No. 12	9	
	Barracks No. 14	158	
	Barracks No. 15	152	
	Bakery	104	
	Minor repairs	158	
Fort Totten, Dak.....	Officers' quarters No. 1	16	801
	Officers' quarters No. 5	191	
	Officers' quarters No. 3	20	
	Officers' quarters No. 4	97	
	Officers' quarters No. 6	21	
	Barracks No. 12	134	
	Barracks No. 13	134	
	Barracks No. 14	157	
	Guard-house	26	
	Stable	12	
Fort Snelling, Minn	Officers' quarters No. 1	16	808
	Officers' quarters No. 2	130	
	Officers' quarters No. 3	34	
	Officers' quarters No. 4	45	
	Band quarters, etc	48	
	Officers' quarters Nos. 11 to 19	274	
	School-house	18	
	Barracks, etc., No. 24	148	
	Stables	58	
	Carriage-house	8	
	Shops, etc	34	
	Lime-house	35	
	Battery stables	21	
Fort Sisseton, Dak	Officers' quarters	42	850
	Barracks	58	
	Wash-house	31	
Fort Shaw, Mont.....	Officers' quarters No. 1	56	131
	Officers' quarters No. 2	45	
	Officers' quarters No. 3	50	
	Officers' quarters No. 4	51	
	Officers' quarters No. 5	40	
	Officers' quarters No. 6	61	
	Officers' quarters No. 7	58	
	Officers' quarters No. 8	50	
	Officers' quarters No. 9	31	
	Officers' quarters No. 10	70	
	Officers' quarters No. 11	51	
	Officers' quarters No. 12	55	
	Officers' quarters No. 13	46	
	Offices	40	
	Barracks No. 15	81	
	Barracks No. 16	101	
	Barracks No. 18	97	
	Barracks No. 19	88	
	Store-house	75	
	Guard-house	55	
	School-house No. 22	312	
	Reading-room	45	
	Employees quarters	69	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE MISSOURI—Continued.

DEPARTMENT OF DAKOTA—Continued.

• Post.	Designation.	Cost.	Total.
Fort Shaw, Mont.—Continued	Corral.....	\$231	
	Ice-house	26	
	Saw-mill	57	
	Shops	75	
			\$2, 055
	Total Department of Dakota.....		37, 695

RECAPITULATION.

Department of the Missouri	\$47, 123
Department of Texas	10, 188
Department of the Platte	36, 917
Department of Dakota	37, 695
Total Division of the Missouri	140, 923

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC.

DEPARTMENT OF THE COLUMBIA.

Post.	Designation.	Cost.	Total.	
Fort Sherman, Idaho	Store-house	Not stated.		
	Barracks No. 1.....			
	Barracks No. 2.....			
	Barracks No. 3.....			
	Barracks No. 4.....			
	Barracks No. 5.....			
	Band quarters			
	Officers' quarters Nos. 1 and 2.....			
	Officers' quarters Nos. 3 and 4.....			
	Officers' quarters No. 5.....			
	Officers' quarters Nos. 6 and 7.....			
	Officers' quarters Nos. 8 and 9.....			
	Officers' quarters Nos. 10 and 11.....			
	Officers' quarters Nos. 12 and 13.....			
	Officers' quarters Nos. 14 and 15.....			
	Guard-house			
	Chapel			
	Non-commissioned staff officers' quarters No. 6.....			
	Saw-mill			
Quartermaster's stables.....				
Cavalry stables.....				
Barns				
Amusement hall				
Cavalry shops				
Pump-house				
Boisé Barracks, Idaho.....	Officers' quarters No. 1.....	Not stated.		
	Officers' quarters No. 2.....			
	Officers' quarters No. 3.....			
	Office and store-house No. 6.....			
	Barracks No. 13.....			
	Mess-hall and kitchen.....			
	Barracks No. 17.....			
	Quartermaster's corral			
	Non-commissioned staff officers' quarters (built).....			\$1, 485
	Bakery (built)			301
Fort Klamath, Oregon.....	Quartermaster's stables.....	Not stated.		
	Cavalry stables.....			
	Officers' quarters No. 4.....			
	Officers' quarters No. 5.....			
	Officers' quarters No. 7.....			
	Officers' quarters No. 8.....			
	Quartermaster's storehouse.....			
	Cavalry barracks.....			

REPORT OF THE SECRETARY OF WAR.

A.—*Statements compiled from reports showing expenditures for repairs, etc.—Continued.*

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF THE COLUMBIA—Continued.

Post.	Designation.	Cost.	Total.
Fort Townsend, Wash	Commanding officer's quarters	Not stated.	
	Officers' quarters No. 3		
	Officers' quarters No. 4		
	Officers' quarters No. 5		
	Barracks No. 7		
	Mess-hall and kitchen		
	Guard-house	Not stated.	
	Stables		
Fort Spokane, Wash	No repairs reported		
Vancouver Barracks, Wash	Officers' quarters Nos. 1 and 2		
	Officers' quarters No. 16		
	Officers' quarters No. 17		
	Officers' quarters No. 18		
	Officers' quarters No. 19		
	Officers' quarters No. 21		
	Officers' quarters Nos. 22 and 23		
	Officers' quarters No. 24	Not stated.	
	Officers' quarters No. 26		
	Officers' quarters No. 28		
	Officers' quarters No. 30		
	Officers' quarters Nos. 31 and 32		
	Post-office		
	Barracks No. 35		
	Barracks No. 36		
	Chapel and school		
	Barracks No. 38		
	Barracks No. 39	Not stated.	
	Barracks No. 40		
	Guard-house No. 41		
	Barracks No. 42		
	Barracks No. 43		
	Barracks No. 46		
	Quartermaster's store-house		
	Non-commissioned staff officers' quarters, Nos. 50, 51, 52, 53, 54		
	Bake-house		
	Battery stable		
	Battery mess	Not stated.	
	School		
	Post stables		
	One barrack built		
	One guard-house built		
	One commissary store-house built		
Vancouver Depot, Wash	Officers' quarters No. 6		
	Officers' quarters A		
	Officers' quarters C		
	Officers' quarters E		
	Officers' quarters F		
	Officers' quarters G		
	Officers' quarters B		
	Officers' quarters H and I		
	Officers' quarters L		
	Officers' quarters M	Not stated.	
	Quartermaster's stables		
Vancouver Ordnance Depot, Wash	Commanding officer's quarters		
	Office and store-room		
	Non-commissioned officers' quarters		
	Barracks		
Fort Walla Walla, Wash	Commanding officer's quarters		
	Officers' quarters Nos. 2 to 4		
	Officers' quarters Nos. 5 to 6		
	Officers' quarters No. 7		
	Officers' quarters No. 8		
	Barracks No. 9	Not stated.	
	Water-closets		
	School		
	Non-commissioned staff officers' quarters		
	Office building		
	Quartermaster's store-house		
	Sergeants' quarters		
	Guard-house		
	Ordnance sergeant's quarters		
	Lodge-room		
	Cavalry stables		
	Officers' quarters No. 44		
	Granary built	\$3,355	\$3,355.00
Total Department of Columbia			5,151.00

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF CALIFORNIA.

Post.	Designation.	Cost.	Total.
Fort Bidwell, Cal.....	Guard-house	\$20	\$2,106
	Ice-house.....	54	
	Hay-shed.....	314	
	Granary.....	308	
	Smith-shop.....	258	
	Smith-shop (built).....	498	
	Magazine (built).....	654	
Alcatraz Island, Cal.....	Officers' quarters No. 1.....	350	\$2,190
	Adjutant's office.....	85	
	Green-house.....	25	
	Officers' quarters No. 7.....	85	
	Officers' quarters No. 8.....	70	
	Officers' quarters No. 9.....	120	
	Non-commissioned staff officers' quarters No. 12.....	66	
	Non-commissioned staff officers' quarters No. 13.....	66	
	Non-commissioned staff officers' quarters No. 14.....	66	
	Married soldiers' quarters.....	84	
	Library.....	5	
	Barracks No. 17.....	110	
	First sergeant's room.....	20	
	Shops.....	5	
	Prison.....	361	
	Smith's shop.....	105	
	Carpenter's shop.....	190	
	Store-room.....	60	
	Kitchen and mess-room.....	54	
	Engine-house.....	10	
	General repairs.....	312	
Angel Island, Cal.....	Officers' quarters No. 1.....	247	\$4,208
	Officers' quarters No. 2.....	180	
	Officers' quarters No. 3.....	94	
	Officers' quarters No. 4.....	109	
	Officers' quarters No. 5.....	130	
	Officers' quarters No. 6.....	134	
	Officers' quarters No. 7.....	103	
	Officers' quarters No. 8.....	143	
	Officers' quarters No. 9.....	130	
	Officers' quarters No. 10.....	116	
	Quartermaster's store-room No. 1.....	224	
	Quartermaster's store-room No. 2.....	131	
	Band quarters.....	76	
	Guard-house.....	209	
	Reading-room.....	64	
	Headquarters building.....	280	
	Barracks No. 1.....	187	
	Barracks No. 2.....	307	
	Barracks No. 3.....	344	
	Barracks No. 4.....	318	
	Barracks No. 5.....	294	
	Stables.....	44	
	Bake-house.....	36	
	Non-commissioned staff officers' quarters No. 1.....	186	
	Non-commissioned staff officers' quarters No. 2.....	56	
	Non-commissioned staff officers' quarters No. 3.....	45	
	Chapel.....	15	
Fort Mason, Cal.....	Commanding general's quarters.....	682	\$4,208
	Commanding general's stable.....	319	
	Officers' quarters No. 1.....	383	
	Officers' quarters No. 2.....	212	
	Officers' quarters No. 3.....	970	
	Officers' quarters No. 4.....	235	
	Guard-house.....	42	
	Barracks No. 6.....	105	
	Men's sink.....	28	
	Wagon-shed.....	180	
	Married soldiers' quarters No. 10.....	78	
	Married soldiers' quarters No. 11.....	46	
	Married soldiers' quarters No. 12.....	21	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF CALIFORNIA—Continued.

Post.	Designation.	Cost.	Total.
Fort Mason, Cal —Continued	Bake-house	\$17	
	Offices and store-room	50	
	Commissary sergeants' quarters	24	
	Hay-scales	10	
	Ordinance sergeant's quarters	23	
	Coal-shed	275	
	Employés' quarters	21	
	Shops	5	
	Fences	480	
			\$1,206
Fort McDermitt, Nev	Commanding officer's quarters		123
Presidio of San Francisco, Cal	Officers' quarters No. 1	195	
	Officers' quarters No. 2	85	
	Officers' quarters No. 3	1,169	
	Officers' quarters No. 4	1,169	
	Officers' quarters No. 5	191	
	Officers' quarters No. 6	134	
	Officers' quarters No. 7	75	
	Officers' quarters No. 8	57	
	Officers' quarters No. 9	57	
	Officers' quarters No. 10	73	
	Officers' quarters No. 11	93	
	Officers' quarters No. 12	57	
	Officers' quarters No. 13	114	
	Officers' quarters No. 14	93	
	Officers' quarters No. 15	75	
	Officers' quarters No. 16	331	
	Officers' quarters No. 17	554	
	Chapel	72	
	School	35	
	Assembly-room	20	
	Officers' quarters No. 21	90	
	Officers' quarters No. 22	78	
	Guard-house	254	
	Headquarters office building	144	
	Forage and coal house	490	
	Barracks No. 29	201	
	Barracks No. 30	250	
	Kitchen and mess-room No. 31	217	
	Barracks No. 32	124	
	Kitchen and mess-room No. 33	179	
	Barrack No.	270	
	Kitchen and mess-room No. 35	241	
	Barrack No. 37	98	
	Barracks No. 38	321	
	Stable No. 44	619	
	Non-commissioned staff officers' quarters No. 60	117	
	Non-commissioned staff officers' quarters No. 68	25	
	Non-commissioned staff officers' quarters No. 69	120	
	Barracks No. 72	82	
	Barracks No. 73	157	
	Harness-shop No. 13		
	Scale-house No. 78		
	Magazine No. 54		
	Barracks No. 88	25	
	Barracks No. 89	84	
	Officers' quarters No. 91	137	
	Officers' quarters No. 92	137	
	Officers' quarters No. 93	137	
	Officers' quarters No. 94	137	
	Officers' quarters No. 97	2,120	
	Officers' quarters No. 98	2,120	
Fort Gaston, Cal	Commissary store-house	4	
	Officers' quarters No. 4	200	
	Surgeon's quarters	167	
	Post headquarters	3	
	Guard-house	5	
	Magazine	1	
	Quartermaster's store-house	180	
	Billiard-room	3	
	Smith's shop	3	
	Commissary sergeant's quarters	8	
	Carpenter's shop	4	
			13,741

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF CALIFORNIA—Continued.

Post.	Designation.	Cost.	Total.
Fort Gaston, Cal.—Continued	Granary	\$110	
	Barn	30	
			\$713
Benicia Barracks, Cal.	Commanding officer's quarters	589	
	Chapel	90	
	Guard-house	515	
	Quartermaster's store-house	28	
	Commissary sergeant's quarters	348	
			1,570
	Total Department of California		24,650

DEPARTMENT OF ARIZONA.

Fort Huachuca, Ariz.	Officers' quarters	65	
	Officers' quarters No. 3	15	
	Officers' quarters No. 5	21	
	Officers' quarters No. 6	48	
	Officers' quarters No. 7	100	
	Officers' quarters No. 9	35	
	Officers' quarters No. 10	385	
	Officers' quarters No. 11	24	
	Officers' quarters No. 13	17	
	Barracks No. 14	82	
	Barracks No. 15	40	
	Barracks No. 16	36	
	Headquarters, etc., No. 17	36	
	Barracks No. 18	2,129	
	Bakery	70	
	Commissary store-house (built)	3,356	
	Granary (built)	475	
	Amusement hall	475	
	Two cavalry stables (built)	3,400	
	Non-commissioned staff officers' quarters (built)	650	
			11,459
Fort Selden, N. Mex.	Barracks No. 1		
	Officers' quarters No. 4		
	Bake-house		Not stated.
Fort Marcy, N. Mex.	Officers' quarters No. 2	158	
	Officers' quarters No. 3	33	
	Officers' quarters No. 4	80	
	Officers' quarters No. 7	45	
	Officers' quarters No. 8	22	
	Officers' quarters No. 9	28	
	Barracks, Nos. 10 and 11	415	
	Guard-house	15	
			776
Sante Fé, N. Mex.	Headquarters offices		473
Fort McDowell, Ariz.	Officers' quarters, Nos. 1 to 9		
	Office		
	Barracks Nos. 11, 12, and 13		
	Married men's quarters No. 15		
	Non-commissioned staff officers' quarters No. 17		
	Quartermaster's store-rooms		Not stated.
	Commissary store-rooms		
	Shops		
	School-house		
	Guard-house		
	Engine-house		
	Cavalry stables		
	Quartermaster's corral		
Fort Wingate, N. Mex.	Commanding officer's quarters	24	
	Officers' quarters Nos. 2 and 4	38	
	Officers' quarters Nos. 3 and 5	38	
	Officers' quarters Nos. 6 and 8	60	
	Officers' quarters Nos. 7 and 9	38	
	Officers' quarters Nos. 10 and 12	38	
	Officers' quarters Nos. 11 and 13	174	
	Officers' quarters Nos. 14 and 16	38	
	Officers' quarters Nos. 15 and 17	74	
	Officers' quarters No. 19	19	
	Officers' quarters Nos. 21 and 22	38	
	Barracks	380	

REPORT OF THE SECRETARY OF WAR.

ent compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF ARIZONA—Continued.

Post.	Designation.	Cost.	Total.
Ariz., N. Mex.—Continued..	Guard-house	\$19	\$1,231
	Saw-mill	185	
	Officers' quarters No. 51	53	
Ariz.	Officers' quarters No. 2	Not stated.	
	Officers' quarters Nos. 3 and 4		
	Barracks No. 5		
	Barrack kitchen No. 6		
Ariz.	Guard-house	Not stated.	
	Officers' quarters No. 1		
	Officers' quarters No. 2		
	Officers' quarters No. 3		
	Officers' quarters No. 4		
	Officers' quarters No. 5		
	Officers' quarters No. 6		
	Officers' quarters No. 7		
	Officers' quarters No. 8		
	Officers' quarters No. 9		
	Officers' quarters No. 10		
	Officers' quarters No. 12		
	Barracks No. 14		
	Barracks No. 15		
	Barracks No. 16		
	Barracks No. 17		
	Barracks No. 18		
	Barracks No. 19		
	Barracks No. 20		
	Cavalry corral		
	Reading-room, etc.		
	Store-houses	Not stated.	
	Offices		
Ariz., N. Mex.	Commanding officers' quarters		
	Officers' quarters No. 2		
	Officers' quarters No. 3		
	Quartermaster's store-house		
	Barracks		
	Chapel, etc.		
	Guard-house		
	Headquarters office		
	Barracks No. 9		
	Barracks No. 10		
	Commissary store-house		
	Bakery		
	Officers' quarters No. 13		
	Commissary sergeant's quarters		
	Married soldiers' quarters, Nos. 16, 17, and 18		
	Corrals		
	Granary		
	Officers' quarters No. 25		
	Guard-house		
Ariz., N. Mex.	Cavalry corrals (built)	590	
	Officers' quarters No. 2		
	Officers' quarters No. 3		
	Officers' quarters No. 4		
	Officers' quarters No. 5		
	Officers' quarters No. 6		
	Officers' quarters No. 7		
	Officers' quarters No. 8		
	Store-house No. 20	500	2,990
	Store-house No. 21	500	
	Bakery	900	
	School and library	400	
	Tools	100	
Ariz.	None reported		784
Ariz., N. Mex.	Barracks and store-houses	100	
	Non-commissioned staff officers' quarters	227	
	Hay house	38	
	Fences	400	
Ariz.	Officers' quarters No. 1	50	250
	Officers' quarters No. 2	50	
	Officers' quarters No. 3	50	
	Officers' quarters No. 4	50	
	Officers' quarters No. 5	50	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF ARIZONA—Continued.

Post.	Designation.	Cost.	Total.
Fort Bowie, Ariz.—Continued.....	Officers' quarters No. 6.....	\$50	\$1,620
	Barracks No. 8.....	150	
	Barracks No. 10.....	150	
	Store-house No. 14.....	125	
	Guard-house (old).....	55	
	Office.....	60	
	Corrals.....	75	
	Barracks No. 19.....	100	
	Barracks kitchen.....	85	
	Quartermaster's store-house.....	65	
	Ice-house (built).....	890	
	Officers' quarters No. 25.....	125	
	New guard-house.....	25	
	Non-commissioned staff officers' quarters.	115	
Fort Apache, Ariz.....	Officers' quarters No. 2.....	Not stated.	
	Officers' quarters No. 3.....		
	Officers' quarters No. 4.....		
	Officers' quarters No. 6.....		
	Officers' quarters No. 8.....		
	Officers' quarters No. 10.....		
Fort Lowell, Ariz.....	Saw mill (built).....	Not stated.	
	Officers' quarters No. 1.....		
	Officers' quarters No. 2.....		
	Officers' quarters No. 3.....		
	Officers' quarters No. 4.....		
	Officers' quarters No. 5.....		
	Officers' quarters No. 6.....		
	Officers' quarters No. 7.....		
	Barracks No. 8.....		
	Barracks No. 9.....		
	Barracks No. 10.....		
	School and library.....		
	Non-commissioned staff officers' quarters No. 20.....		
	Non-commissioned staff officers' quarters No. 21.....		
	Band quarters.....		
Fort Verde, Ariz.....	None reported.....		
Fort Union, N. Mex.....	Officers' quarters No. 1.....	6	436
	Officers' quarters No. 2.....	1	
	Officers' quarters No. 4.....	6	
	Officers' quarters No. 5.....	1	
	Officers' quarters No. 7.....	1	
	Officers' quarters No. 9.....	11	
	Barracks No. 10.....	56	
	Barracks No. 11.....	76	
	Barracks No. 12.....	76	
	Barracks No. 14.....	20	
	Barracks No. 15.....	7	
	Barracks and library.....	44	
	Guard-house.....	6	
	Barracks No. 19.....	5	
	Barracks No. 21.....	76	
	Barracks and bakery.....	44	
Fort Union Depot.....	Officers' quarters No. 2.....	8	
	Officers' quarters No. 5.....	4	
	Officers' quarters No. 6.....	1	
	Quartermaster's store-house No. 8.....	1	
	Quartermaster's store-house No. 9.....	3	
	Quartermaster's store-house No. 10.....	6	
	Quartermaster's store-house No. 11.....	2	
	Subsistence storehouse No. 12.....	3	
	Commissary sergeant's quarters.....	1	
	Boiler-house.....	3	
Fort Thomas, Ariz.....	Barracks No. 12.....	Not stated.	
	Barracks No. 13.....		
	Barrack, No. 14.....		
	Bakery.....		
	Telegraph office.....		
	Ice-machine shelter.....		
Fort Bayard, N. Mex.....	Officers' quarters No. 1.....			120
	Officers' quarters No. 2.....	310	
	Officers' quarters No. 3.....	366	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE PACIFIC—Continued.

DEPARTMENT OF ARIZONA—Continued.

Post.	Designation.	Cost.	Total.
Fort Bayard, N. Mex.—Continued...	Officers' quarters No. 4.....	\$306	
	Officers' quarters No. 5.....	133	
	Officers' quarters No. 6.....	494	
	Commanding officer's quarters No. 7..	230	
	Officers' quarters No. 8.....	306	
	Officers' quarters No. 9.....	306	
	Officers' quarters No. 10.....	185	
	Officers' quarters No. 11.....	211	
	Officers' quarters No. 12.....	651	
	Officers' quarters No. 13.....	282	
	Barracks No. 1.....	170	
	Barracks No. 2.....	170	
	Barracks No. 3.....	170	
	Barracks No. 4.....	160	
	Non-commissioned staff officers' quarters.....	450	
	Barracks No. 6.....	185	
	Forage-house.....	50	
	Guard-house.....	75	
	Office.....	45	
	Stables No. 1.....	75	
	Stables No. 2.....	75	
	Stables No. 3.....	20	
	Barracks No. 5.....	75	
	Officers' quarters No. 16.....	18	
	Officers' quarters No. 17.....	18	
	Stables No. 4.....	20	
	Band quarters.....	38	
	Commissary store-house.....	62	
	Total Department of Arizona.....		\$5,966
			25,957

RECAPITULATION.

Department of the Columbia.....	\$5,151
Department of California.....	24,650
Department of Arizona.....	25,967
Total.....	55,767

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC.

Post.	Designation.	Cost.	Total.
Madison Barracks, N. Y.....	Officers' quarters No. 1.....	\$119	
	Officers' quarters No. 2.....		
	Company quarters No. 3.....		
	Company quarters No. 4.....		
	Fences.....	19	
	Quartermaster's stables.....		
	Non-commissioned staff officers' quarters No. 7.....		
	Non-commissioned staff officers' quarters No. 11.....	36	
	Guard-house.....		
	Coal-sheds.....		
	Commanding officer's stables.....		
	Smith's shop and pump-house.....		
	Non-commissioned staff officers' quarters No. 33.....	15	
Fort Myer, Va.....	Commanding officer's quarters.....	183	
	Officers' quarters No. 2.....	233	
	Officers' quarters No. 3.....	380	
	Officers' quarters No. 4.....	602	
	Post quartermaster's sergeants' quarters.....	19	
			\$189

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC—Continued.

Post.	Designation.	Cost.	Total.
Fort Myer, Va.—Continued	Barracks No. 10	\$396	\$29,788
	Barracks (built) No. 11	7,743	
	Mess-hall and kitchen (built) No. 12 ..	5,572	
	Offices, etc.	49	
	Guard-house	11	
	Store-houses	161	
	Cavalry stables (built) No. 23	5,990	
	Cavalry stables (built) No. 24	5,990	
	Company privy (built)	668	
	Stable guard-house (built) No. 33	497	
	Stable guard-house (built) No. 34	497	
	Cavalry smith's shop	609	
	Oil-house	157	
Fort Brady, Mich	Barracks No. 1	63	402
	Mess-hall, etc., No. 2	70	
	Officers' quarters No. 5	22	
	Officers' quarters No. 6	22	
	Officers' quarters No. 7	27	
	Post guard-house	15	
	Adjutant's office	6	
	Coal-shed	22	
	Officers' quarters No. 24	19	
	Non-commissioned staff officers' quar-		
	ters No. 25	2	
	Dust-shed	88	
	Minor buildings	46	
Fort Ontario, N. Y.	Officers' quarters No. 1, east side	123	2,263
	Officers' quarters No. 1, west side	102	
	Officers' quarters No. 2, south side	129	
	Officers' quarters No. 2, north side	89	
	Guard-house	7	
	Commanding officers' office	3	
	Barracks No. 6	401	
	Stable and shed (built)	1,403	
	Ordnance sergeant's quarters	6	
Washington Barracks, D. C.	Quartermaster's stables, etc., No. 7 ..	12	1,936
	Stables No. 18	28	
	Non-commissioned staff officers' quar-		
	ters	5	
	Officers' quarters Nos. 1, 2, 3, and 4 ..	1,481	
	Library, etc	75	
	Barracks No. 6	135	
	Shed	200	
Jackson Barracks, La.	Commanding officers' quarters No. 1 ..	120	2,023
	Officers' quarters No. 2	22	
	Officers' quarters No. 3	452	
	Officers' quarters No. 4	40	
	Officers' quarters No. 5	40	
	Officers' quarters No. 6	40	
	Officers' quarters No. 7	40	
	Barracks No. 8	170	
	Barracks No. 9	160	
	Barracks No. 10	168	
	Barracks No. 11	156	
	Company privy	1	
	Quartermasters' store-house	1	
	Store-house	6	
	Non-commissioned staff officers' quar-		
	ters No. 17	76	
	Non-commissioned staff officers' quar-		
	ters No. 18	76	
	Stable	1	
	Wagon shed	1	
For Porter, N. Y	Bakery	1	62,047
	Fences	443	
	Field officers' quarters No. 1	205	
	Three barracks (built)	27,802	
	Guard-house (built)	3,705	
	One barrack, brick (built)	25,092	
	Bakery	2,161	
	Store-house	2,140	
	Magazine	790	

A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC—Continued.

Post.	Designation.	Cost.	Total.
Little Rock Barracks, Ark.....	Commanding officer's quarters	\$193	\$3,641
	Commanding officer's quarters No. 3	85	
	Commanding officer's quarters No. 4	31	
	Commanding officer's quarters No. 9	13	
	Offices and store-rooms	80	
	Barracks No. 20	326	
	Barracks No. 22	45	
	Barracks No. 23	139	
	Squad-room No. 24	41	
	Guard-house	75	
	Guard-house (built)	273	
	Quartermaster's stables (built)	545	
	Reservation fence	1,875	
Fort Monroe, Va.....	Commanding officer's quarters	12	\$2,163
	Officers' quarters No. 3	48	
	Barracks No. 5	90	
	Boiler-house	2	
	Officers' quarters No. 8	129	
	Recitation-room	102	
	Officers' library	1	
	Children's school	2	
	Officers' quarters No. 14	22	
	Officers' quarters No. 15	26	
	Officers' quarters No. 16	122	
	Officers' quarters No. 17	43	
	Officers' quarters No. 18	70	
	Officers' quarters No. 20	144	
	Officers' quarters No. 21	193	
	Non-commissioned staff officers' quarters No. 22	106	
	Engine and school house	8	
	Mill Creek stables	52	
	Hay scales	34	
	Quartermaster's store-house	4	
	Commanding officer's office	420	
	Adjutant's office	160	
	Officers' quarters No. 50	123	
	Officers' quarters No. 51	1	
	Repair shops	17	
	Officers' quarters No. 55	124	
	Pump-house	98	
Governor's Island, New York Harbor	Commanding general's quarters	614	\$2,163
	Officers' quarters Nos. 2 and 3	129	
	Officers' quarters Nos. 4 and 5	201	
	Officers' quarters Nos. 6 and 7	193	
	Officers' quarters Nos. 8 and 9	265	
	Officers' quarters Nos. 10 and 11	230	
	Officers' quarters Nos. 12 and 13	800	
	Officers' quarters No. 14	658	
	Officers' quarters No. 15	88	
	Officers' quarters No. 16	316	
	Officers' quarters No. 17	37	
	Officers' quarters No. 18	135	
	Offices A	98	
	Offices B	80	
	Store-rooms, etc	23	
	General service clerks' quarters	95	
	Quartermaster store-house (built)	5,439	
	Coal shed	56	
	Mess-room, etc	1,103	
	Employés' quarters	60	
Fort Wadsworth, New York Harbor.	Chapel	37	\$11,129
	Quartermaster employés' quarters	483	
	Officers' quarters No. 1	230	
	Quarters No. 2	385	
	Quarters No. 3	297	
	Quarters No. 4	345	
	Quarters No. 5	297	
	Quarters No. 6	106	
	Quarters No. 7	232	
	Headquarters (building)	105	
	Ordnance sergeant's quarters	94	
	Commissary sergeant's quarters	127	
	Quartermaster quarters (built)	1,188	
	Stable (built)	1,568	
	Store-room	94	

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC—Continued.

Post.	Designation.	Cost.	Total.
Fort Wadsworth, New York Harbor— Continued.	Coal bin.....	\$148	
	Squad-room and kitchen	246	
	Boat-house.....	45	
			\$5,488
St. Francis Barracks, Fla.....	Officers' quarters No. 1.....	30	
	Barracks No. 2	75	
	Smith's shop	44	
	Officers' quarters No. 19.....	7	
	Officers' quarters No. 20.....	17	
	General repairs	74	
			247
Fort Warren, Mass.....	Officers' quarters No. 1	6	
	Officers' quarters No. 2	6	
	Officers' quarters No. 4	14	
	Adjutant's office	3	
	Bakery, etc	2	
	Company water-closet	90	
	Office acting assistant quartermaster	18	
	Company quarters No. 15	4	
	Company quarters No. 16	54	
	Company quarters No. 17	54	
	Company quarters No. 18	54	
	Company mess-room No. 19	40	
	Company mess-room No. 20	4	
	Company mess-room No. 21	32	
	Company mess-room No. 22	9	
	Company mess-room No. 23	9	
	Company mess-room No. 24	10	
	Ordnance sergeant's quarters	22	
	Officers' quarters No. 44	1	
	Officers' quarters No. 45	6	
	Officers' quarters No. 46	5	
	Officers' quarters No. 47	3	
	Officers' quarters No. 49	5	
	Officers' quarters No. 50	4	
	Guard-house No. 52	20	
	Stables	42	
	Non-commissioned staff officers' quarters	4	
	Laundress's quarters	6	
	Waiting-room	80	
	Coal sheds	158	
	Fences	48	
			813
Fort McHenry, Md.....	Barracks No. 1.....	283	
	Commanding officer's quarters	100	
	Officers' quarters No. 5	700	
	Officers' quarters No. 6	741	
	Officers' quarters No. 7	20	
	Officers' quarters No. 8	607	
	Officers' quarters No. 9	693	
	Officers' quarters No. 11	496	
	Officers' quarters No. 12	1,115	
	Married-men's quarters	7	
	Commissary sergeant's quarters	2	
	Ordnance sergeant's quarters	2	
	Post quartermaster-sergeant's quarters	7	
	Guard-house	37	
	Water-closet	16	
	Coal-house (built)	2,535	
			7,361
Fort Wood, New York Harbor	Converting quarters formerly occupied by commissary sergeant into a double cottage		2,237
Fort Wayne, Mich	Officers' quarters, nine buildings.....	813	
	Barracks	55	
	Non-commissioned staff officers' quarters	60	
	Stable	36	
	Fences	240	
	General repairs	101	
			1,305
Newport Barracks, Ky	General repairs		90
Fort Niagara, N. Y.	One barrack (built)		
	Store-house (built)		
	Commanding officer's quarters (repaired)		
	Officers' quarters Nos. 3, 4, and 5, (repaired)		
	Barn and stable (repaired)		
		Not stated.	

PORT OF THE SECRETARY OF WAR

d from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC—Continued.

	Designation.	Cost.	Total.
	Barracks No. 1	\$254	
	Commanding officer's quarters No. 7	154	
	Frame quarters No. 8	470	
	Frame quarters No. 9	467	
	Frame quarters No. 10	4-5	
	Frame quarters No. 13	231	
	Frame quarters No. 15	295	
	Frame quarters No. 16	206	
	Frame quarters No. 17	202	
	Store-house, etc., No. 19	604	\$3,468
	Commanding officer's quarters	53	
	Officers' quarters No. 2	102	
	Officers' quarters No. 3	240	
	Officers' quarters No. 4	290	
	Officers' quarters No. 5	267	
	Officers' quarters No. 6	304	
	Officers' quarters No. 7	287	
	Officers' quarters No. 9	193	
	Barracks No. 10	53	
	Store-houses No. 13	158	
	Stables No. 14	153	
	Non-commissioned staff officers' quarters	40	
	Non-commissioned staff officers' privy	165	2,510
	Commanding officer's quarters	49	
	Coal-sheds (built)	426	
	Office building	442	
	Barracks No. 3	21	
	Barracks No. 4	77	
	Non-commissioned staff officers' quarters	295	
	Coal-shed No. 14	48	
	Store-rooms	31	
	Wood-shed	26	
	Block-house	1	
	Officers' quarters No. 21	98	
	Officers' quarters No. 22	35	
	Officers' quarters No. 23	199	
	Officers' quarters No. 24	472	
	Bath-house	56	
	Fences	65	2,341
	Officers' quarters No. 1	75	
	Barracks and kitchen	129	
	Non-commissioned staff officers' quarters	15	
	Commanding officer's quarters	110	
	Officers' quarters No. 18	191	
	Officers' quarters No. 19	82	602
Ala	Commanding officer's quarters	32	
	Officers' quarters Nos. 2 and 3	34	
	Officers' quarters Nos. 6 and 6½	67	
	Officers' quarters No. 7	28	
	Mess-hall No. 10	13	
	Barracks No. 11	25	
	Officers' quarters No. 15	21	
	Non-commissioned staff officers' quarters	100	
	Non-commissioned staff officers' quarters No. 29	59	370
Harbor	Officers' quarters No. 1	211	
	Officers' quarters No. 2	120	
	Officers' quarters No. 5½	62	
	Officers' quarters No. 6	633	
	Officers' quarters No. 6	116	
	Officers' quarters No. 7, A	116	
	Officers' quarters No. 13	366	
	Officers' quarters No. 14	366	
	Non-commissioned staff officers' quarters No. 10	130	
	Subsistence store-house	263	
	Stable No. 16	500	
	Gun-shed	82	
	Barracks No. 26	41	
	Shops	344	8,30

QUARTERMASTER-GENERAL.

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A.—Statement compiled from reports showing expenditures for repairs, etc.—Continued.

DIVISION OF THE ATLANTIC—Continued.

Post.	Designation.	Cost.	Total.
Fort Preble, Me	Commanding officer's quarters No. 1	\$186	\$636
	Adjutant's office No. 2	1	
	Officers' quarters No. 3	160	
	Officers' quarters No. 4	40	
	Officers' quarters No. 5	62	
	Guard-house No. 6	7	
	Shops, etc., No. 8	45	
	Mess-room, No. 9	44	
	Battery quarters No. 10	21	
	Married men's quarters No. 15	7	
	Commissary-sergeant's quarters No. 17	44	
	Quartermaster's office, etc., No. 18	10	
	Stable No. 21	58	
Fort Schuyler, N. Y	Officers' quarters A	128	1,442
	Officers' quarters C and D	490	
	Barracks	164	
	Post quartermaster-sergeant's quarters	338	
Fort Columbus, New York Harbor ..	Lumber, etc	322	2,772
	Battery quarters	129	
	Officers' quarters Nos. 1 and 2	111	
	Officers' quarters Nos. 3, 4, and 5	276	
	Officers' quarters Nos. 6, 7, 8, and 9	895	
	Battery quarters No. 4	471	
	Converting old boat-house into a set of quarters	1,390	
Castle William, N. Y	Shutters for casemates and balcony repairs		1,280
Plattsburgh Barracks, N. Y	Officers' quarters No. 1	98	180
	Barracks No. 2	61	
	Gun-shed	14	
	Non-commissioned staff officers' quarters	8	
	Wagon-shed	9	
Total Division of the Atlantic			150,860

RECRUITING STATIONS.

David's Island, New York Harbor...	Commanding officer's quarters	39	27,834
	Officers' quarters No. 2	12	
	Officers' quarters No. 3	21	
	Officers' quarters No. 4	2	
	Officers' quarters No. 5	3	
	Officers' quarters No. 6	2	
	Officers' quarters Nos. 7 and 8	95	
	Officers' quarters No. 9	3	
	Two sets officers' quarters Nos. 10 and 11 (built)	5,298	
	Quartermaster's stable No. 12	2	
	Commissary-sergeant's quarters No. 13	3	
	Bakery No. 16	33	
	Pump-house, No. 17	109	
	Mess-hall	690	
	New barracks (built)	19,799	
	Depot detachment quarters	1,705	
	Barracks, Company B	3	
	Barracks, Company A	3	
	Barracks, Company C	3	
	Barracks, Company D	3	
	Ice-house	1	
	Chief musician's quarters	4	
	Quartermaster's store-house	1	
Columbus Barracks, Ohio	Officers' quarters Nos. 1 and 2	396	
	Officers' quarters Nos. 3 and 4	312	
	Officers' quarters Nos. 5 and 6	288	
	Stables	30	
	Magazine	43	
	Commanding officer's quarters	54	
	Barracks, Companies B and D	584	
	Barracks, Company A	145	

Q.—Statement of the military reservations in the several States and Territories, showing location, size, and how occupied.

Station.	Location.	Latitude.	Longitude.	Size of reservation.	How occupied.
Fort A. Lincoln	Dakota, on Missouri River, 6½ miles from Mandan, on Northern Pacific Railroad.	46 47	100 50	23½ square miles.....	Two companies of infantry.
Fort Adams	Brenton's Point, Rhode Island	41 28	71 22	1:84 acres.....	Headquarters and five companies of artillery.
Alcatraz Island	Bay of San Francisco, California.....	37 49	122 26	About 12 acres	Headquarters and four companies of infantry.
Angel Island	San Francisco Harbor, California.....	37 48	122 24	About 640 acres	Two companies of infantry.
Fort Apache	Arizona, 90 miles from Holbrook, on Atlantic and Pacific Railroad.	33 40	109 55	7,421.14 acres	Headquarters, two troops cavalry, and seven companies infantry.
Fort Assiniboine	Montana, on Saint Paul, Minneapolis and Manitoba Railroad	48 30	109 43	About 704,000 acres	Headquarters and two companies artillery.
Atlanta	Fulton County, Ga.	33 48	84 31	About 140 acres	Headquarters, three troops cavalry, and three companies infantry.
Fort Barracas	Pensacola Bay, Florida	30 19	87 16	1,667.37 acres	One company of infantry.
Fort Bayard	New Mexico, 9 miles from Silver City, on Silver City, Deming and Pacific Railroad.	32 47	108 9	13 square miles and 520 acres.....	Two troops of cavalry.
Benicia Barracks	Near Benicia, Cal.	38 2	122 7	98.78 acres.....	Headquarters and two companies of infantry.
Fort Bennett	Dakota, on Chicago and Northwestern Railroad, 24 miles from Pierre.	44 43	100 39	No reservation; on Indian reservation.	Headquarters and two companies of infantry.
Fort Bidwell	Siskiyou County, Cal.	41 52	120 0	2,450.416 acres	Two troops of cavalry.
Fort Bliss	On Rio Grande, 1½ miles from El Paso, Tex.	31 44	106 29	134.85 acres	Headquarters and two companies of infantry.
Bolae Barracks	Boise County, Idaho	43 37	116 0	638 acres, more or less	One company of infantry and one troop of cavalry.
Fort Bowie	Apache Pass, Arizona, 13 miles from Bowie Station, on Southern Pacific Railroad.	32 10	109 30	36 square miles	Two troops of cavalry and one company of infantry.
Fort Brady	Chippewa County, Mich.	46 30	84 20	26.14 acres	Two companies of infantry.
Fort Bridger	Utah County, Wyo., 10 miles from Carter Station, on Union Pacific Railroad.	41 16	110 32	16 square miles	Five companies of infantry.
Fort Brown	Texas, on Rio Grande	25 54	97 26	350 acres, more or less, held without lease or payment of rent.	Two troops of cavalry and one company of infantry.
Fort Buford	Dakota, on Missouri River	47 59	103 58	506,042½ acres.	Headquarters, four troops of cavalry, and four companies infantry.
Fort Canby	Pacific County, Wash., 14 miles from Astoria.....	46 17	124 3	588.20 acres, more or less.....	Not garrisoned.
Fort Carroll	Maryland, 8 miles from Baltimore.....	39 15	76 35	4 acres.....	Ordinance sergeant.
Fort Cassell	Oak Island, N. C., 2 miles from Southport.....	34 0	78 1	About 500 acres.....	Do.
Fort Clark	Kinney County, Tex., 9 miles from Spoford Junction, on Galveston, Harrisburgh and San Antonio Railroad.	29 17	100 25	3,867.46 acres.....	Headquarters, three troops cavalry, and five companies infantry.
Clark's Point	Massachusetts, 4 miles from New Bedford.....	41 25	70 54	60 acres.....	Ordinance sergeant.
Fort Clinch	Amelia Island, Florida, 3 miles from Fernandina.....	30 41	81 24	400 acres.....	Do.
Columbus Barracks	Columbus, Ohio	39 51	83 5	About 78 acres.....	Ordinance detachment.

B.—Statement showing property rented by the Quartermaster's Department, and in service June 30, 1888.

Post.	Designation.	Monthly rate.
San Francisco, Cal.....	One building occupied as offices and store-houses by the medical, subsistence and quartermaster's departments and by the quartermaster's stable.	\$833.33
	Storage of mineral oil.....	50.00
	Store-room for shelter of extra supplies.....	125.00
	Headquarters offices.....	750.00
	Headquarters stable.....	90.00
	Office quartermaster's agent.....	12.00
Chicago, Ill.....	Headquarters offices.....	1,245.00
	Commissary of subsistence store-rooms and offices.....	300.00
	Stable.....	152.00
Denver, Colo.....	Quartermaster's office.....	50.00
	Commissary subsistence office.....	30.00
Leavenworth, Kans.....	Paymaster's office.....	50.00
Miami, Tex.....	Agent's office.....	10.00
Paul's Valley, Ind. T.....	Agent's office.....	14.00
Woodward, Ind. T.....	Agent's office.....	20.00
Maricopa, Ariz.....	Agent's office.....	15.00
Benson, Ariz.....	Agent's office.....	20.00
Wilcox, Ariz.....	Agent's office.....	20.00
Needles, Cal.....	Agent's office.....	10.00
Holbrook, Ariz.....	Agent's office.....	6.00
Huachuca Siding, Ariz.....	Telephone office.....	10.00
Hackberry, Ariz.....	Agent's office.....	15.00
Tucson, Ariz.....	Paymaster's office.....	70.00
	Quartermaster's office.....	50.00
	Stable.....	12.50
Lava, N. Mex.....	Agent's office.....	15.00
	Quartermaster's store-house.....	15.00
Albuquerque, N. Mex.....	Agent's office.....	15.00
	Paymaster's office.....	30.00
Silver City.....	Agent's office.....	15.00
San Diego, Cal.....	Hospital building.....	50.00
	Officers' quarters.....	216.00
Los Angeles, Cal.....	Headquarters offices.....	500.00
Santa Fé, N. Mex.....	Quartermaster's stable.....	60.00
	Non-commissioned staff officer's quarters, Tenth Cavalry.....	60.00
	Commissary sergeant's quarters.....	15.00
	Hospital steward's quarters.....	15.00
Portland, Oregon.....	Quartermaster and paymaster's offices.....	95.00
	Quartermaster's store-room.....	50.00
Walla Walla, Wash.....	Paymaster's office.....	20.00
Marfa, Tex.....	Agent's office.....	20.00
Ballinger, Tex.....	do.....	20.00
Pena, Tex.....	do.....	8.00
San Antonio, Tex.....	Two commissary sergeants' quarters.....	24.00
	Veterinary surgeon's quarters.....	12.00
	Chief musician's quarters.....	12.00
	Two captains' quarters.....	50.00
	Two principal musicians' quarters.....	24.00
Edinburgh, Tex.....	Store-rooms.....	15.00
Fort Concho, Tex.....	Site.....	200.00
Fort Davis, Tex.....	Site.....	75.00
Camp Del Rio, Tex.....	Part of site.....	19.93
Camp Pena Colorado, Tex.....	Site.....	50.00
Camp Eagle Pass, Tex.....	Site.....	75.00
Camp Langtry, Tex.....	Site.....	8.33
Camp Santa Maria, Tex.....	Site.....	12.50
Camp Eagle Pass, Tex.....	Paymaster's office.....	25.00
Fort Bliss, Tex.....	Barracks, quarters, etc.....	175.00
Omaha, Nebr.....	Headquarters offices.....	440.00
	Headquarters stable lot.....	16.67
Salt Lake, Utah.....	Paymaster's office.....	30.00
Ogden, Utah.....	Quartermaster's office and warehouse.....	25.00
Carter, Utah.....	Quartermaster's office and warehouse.....	16.67
Bordeaux, Utah.....	Quartermaster's office and warehouse.....	25.00
Price, Utah.....	Quartermaster's office and warehouse.....	30.00
Saint Louis, Mo.....	Office and storehouse for medical department.....	225.00
	Office and store-house for subsistence department.....	150.00
Saint Louis, Mo.....	Office and store-house for quartermaster and pay department and education of the Army.....	270.83
	Stable for quartermaster's department.....	40.00
	Coral for subsistence department.....	35.00
Washington, D. C.....	Lots 9 and 10 in square 231, occupied by subsistence department.....	20.33
	Lot 443, K street, northwest, quartermaster department.....	125.00
	Headquarters of Army stable.....	45.00
	Quarters for two hospital stewards.....	42.00

B.—Statement showing property rented by the Quartermaster's Department, etc.—Conf'd.

Post.	Designation.	Monthly rate.
New York City.....	Quartermaster's stable.....	\$63.66
	"Army Building".....	2,500.00
	Hospital steward's quarters.....	14.00
Newport, R. I.....	Officers' quarters.....	24.00
Philadelphia, Pa.....	Quartermaster's department office.....	154.17
	Office attending surgeon.....	18.00
	Office for ordnance officer.....	20.00
Sioux City, Iowa.....	Office of paymaster.....	35.00
Helena, Mont.....	Quartermaster's office.....	50.00
Yorktown, Va.....	Soldier's quarters.....	5.00
New Orleans, La.....	Store-houses.....	150.00
Baltimore, Md.....	Offices for quartermaster's, subsistence, and pay departments.....	83.33
Boston, Mass.....	Offices for quartermaster's, subsistence, ordnance, and pay departments.....	95.00
Buffalo, N. Y.....	Offices for quartermaster's and pay departments.....	71.60
New Orleans, La.....	Offices for quartermaster's, subsistence, and pay departments.....	90.00
Atlanta, Ga.....	Offices for pay department.....	25.00
Detroit, Mich.....	Offices for paymaster.....	25.00
Frankford Arsenal.....	Surgeon's quarters.....	24.00
Louisville, Ky.....	Office.....	20.00
Monthly rate.....		10,963.25
Annual rate.....		131,559.00

Memorandum in regard to status of sites of posts in Texas.

Fort Bliss.—Site owned by the United States.

Fort Clark.—Site owned by the United States.

Fort Hancock.—Site owned by the United States.

Fort McIntosh.—Site owned by the United States.

Fort Ringgold.—Site owned by the United States.

San Antonio.—Site owned by the United States.

Camp Del Rio.—Site owned in part by the United States. Two thousand three hundred and ninety-one acres leased from John Twohig and Beauregard heirs. Rent, \$239.15 per annum. Last lease dated May 16, 1887; if wanted after June 30, 1889, United States can renew lease from year to year on mutual terms. No right of purchase given.

Fort Davis.—Site owned in part (300 acres) by the United States. Surveys Nos. 6, 8, 9, 27, and 28, as covered by patents issued by the State of Texas, held under lease made November 29, 1867, with John James. Period of lease, fifty years from November 29, 1867. Rate of rent, \$900 per annum. No privilege of renewal or of purchase.

Camp at Eagle Pass.—Site covers 62.94 acres; owned by John Twohig; rent, \$75 per month. Last lease dated May 15, 1888. If wanted after June 30, 1889, United States can retain on mutual terms. No right of purchase given.

Santa Maria.—Site covers about 11 acres; owned by L. J. Hynes. Rent, \$150 per annum; lease dated May 15, 1888; United States can hold at that rate until June 30, 1890. No right to purchase given.

Fort Concho.—Site covers about 1,400 acres; owned by Adams and Wicks. Rent \$200 per month; last lease dated May 10, 1887; expires June 30, 1888; United States can renew on mutual terms up to June 30, 1899. No right of purchase given.

Camp Pena Colorado.—Section No. 400, as shown by official survey by the State of Texas, owned by Myer Half and Solomon Half. Rent, \$50 per month. Last lease dated May 15, 1888. United States can hold at same rate until June 30, 1890. No right of purchase given.

Fort Elliott.—Sections 37, 45, 55, and 67 in block A, of surveys made for the Houston and Great Northern Railroad Company, according to the sketch of surveys in said block A 5, certified by the commissioner of the general land office of the State of Texas to be correct, dated January 5, 1877, leased to the United States at the rate of \$1 per annum for thirteen years from January 1, 1877. No privilege of renewal; all improvements made by United States to revert to owners of land. United States has right to purchase during term of lease at \$3 per acre, with 10 per cent. per annum added from January 1, 1878. On February 18, 1888, Secretary of War authorized exchange of sections 37 and 45 for 47 and 53, during the remainder of the term covered by said lease, with equal rights and privileges which would accrue to the United States, under conditions of said instrument. Surveys No. 36, 640 acres; No. 46, 640

acres; No. 54, 640 acres; No. 56, 640 acres; No. 66, 640 acres, leased from State of Texas, March 28, 1877, \$1 per annum for thirteen years from January 1, 1877. No privilege of renewal or for right to purchase. Section No. 68 leased from State of Texas at \$1 per annum, from November 16, 1880. Lease expires December 31, 1889. No privilege of renewal or for right of purchase.

Camp Langtry.—Covers parts of surveys Nos. 619, 620, and 621, county of Presidio, as shown on plat No. 2, filed by C. Torres with chief quartermaster, Department of Texas. Leased from said Torres for \$100 per annum. United States can hold at this rate until June 30, 1889. No privilege of purchase.

Camp at Edinburgh.—No rent paid for site; store-room only rented.

Camp at Nevill's Springs.—No rent paid for site.

Fort Brown.—No rent paid; title and ownership in dispute.

C.—Statement of the military reservations in the several States and Territories, showing location, size, and how occupied—Continued.

Station.	Location.	Latitude.	Longitude.	Size of reservation.	How occupied.
Fort Independence	Castle Island, Boston Harbor.....	42 21	71 0	12 acres.....	Not garrisoned.
Jackson Barracks	On Mississippi River, Louisiana, 6 miles from railroad station, New Orleans.....	29 57	90 0	87.87 acres.....	Two companies of artillery.
Fort Jackson	73 miles from New Orleans, La.....	29 21	89 26	740.97 acres.....	Ordinance sergeant.
Jefferson Barracks	Saint Louis County, Mo.....	38 25	90 17	1,379 acres.....	Recruiting depot.
Fort Jefferson	Garden Key, Florida, 71 miles from Key West.....	24 38	82 52	5 acres.....	Ordinance sergeant.
Fort Johnston	North Carolina, 22 miles from Wilmington.....	34 0	78 5	43,560 square feet.....	Not garrisoned.
Fort Keogh	Montana, railroad station, Northern Pacific Railroad.....	46 23	105 57	About 90.03 square miles.....	Headquarters, two troops cavalry, and seven companies infantry.
Key West Barracks	Florida.....	24 33	81 48	22.79 acres.....	Ordinance sergeant.
Fort Klamath	Jackson County, Oregon, 91 miles from Agor, Cal., on California and Oregon Railroad.....	42 41	121 55	Post reservation 1,641 square miles; hay and wood reservation 3,309 square miles.....	One company of infantry.
Fort Knox	Hancock County, Me., three-fourths mile from Bucksport.....	44 34	68 48	150 acres.....	Ordinance sergeant.
Fort Lafayette	New York Harbor.....	40 37	74 2	About 2 acres.....	Commanding officer Fort Hamilton.
Fort Laramie	Laramie River, Wyoming, 28 miles from Bordeaux, on Cheyenne and N. Div. Union Pacific Railroad.....	42 12	104 33	62 square miles, approximately.....	Headquarters and six companies of infantry.
Fort Leavenworth	On Missouri River, Kansas.....	39 21	94 55	About 5,960 acres.....	Headquarters four troops cavalry, one company artillery, and four companies infantry.
Leavenworth Military Prison	On Fort Leavenworth Reservation.....	39 21	94 55	Same as above.....	Three companies of infantry.
Fort Lewis	Colorado, on Rio de la Plata, 12 miles from Durango, on Denver and Rio Grande Railroad.....	37 0	108 0	About 53 square miles.....	Two troops of cavalry and six companies of infantry.
Little Rock Barracks	Little Rock City, Arkansas River.....	34 43	92 10	26 acres.....	Two companies of artillery.
Fort Livingston	Grand Terre Island, La., 95 miles from New Orleans.....	29 15	90 0	610 acres.....	Ordinance sergeant.
Fort Lowell	Pima County, Ariz., 7 miles from Tucson, on Southern Pacific Railroad.....	32 12	110 49	51,631.36 acres.....	Three troops of cavalry.
Fort Lyon	Colorado, on north bank Arkansas River, 7 miles from Los Animas, on Atchison, Topeka and Santa Fé Railroad.....	38 5	103 3	9 square miles and 115 acres.....	Five companies infantry.
Fort Mackinac	Mackinac Island, Michigan.....	45 51	84 41	103.41 acres.....	Two companies of infantry.
Fort Macomb	Louisiana, 14 miles from Chef Menteur.....	30 5	89 51	1,364.71 acres.....	Ordinance sergeant.
Fort Macon	North Carolina, 2 miles from Morehead City.....	30 41	76 40	14 square miles.....	Ordinance sergeant.
Madison Barracks	Sackett's Harbor, N. Y.....	43 57	76 15	39½ acres.....	Headquarters and five companies of infantry.
Fort Maginnis	Montana, 53 miles from Rocky Point, on the Missouri River.....	47 9	109 10	59 square miles.....	One troop cavalry and one company of infantry.
Fort Mary	Santa Fé, N. Mex.....	35 41	105 56	About 17½ acres.....	One company of infantry.
Fort Marion	Saint Augustine, Fla.....	29 45	81 40	About 22½ acres.....	Commanding officer Saint Francis barracks.

Fort Mason.....	California, 8 miles from San Francisco.....	37 1	122 23	55½ acres.....	One company of artillery.
Fort McClary.....	Kittery Point, Me., 4½ miles from Portsmouth, N. H.....	43 5	70 45	15 acres.....	Ordnance sergeant.
Fort McDermitt.....	Humboldt County, Nev., 79 miles from Winnemucca, on Central Pacific Railroad.....	41 58	117 27	3,974.4 acres.....	One company of infantry.
Fort McDowell.....	On Rio Verde, Arizona, 32 miles from Phoenix, on Missouri Pacific Railroad.....	38 40	111 40	24,750.15 acres.....	One troop cavalry and one company of infantry.
Fort McHenry.....	Whetstone Point, Baltimore, Md.....	89 17	71 35	49½ acres.....	Three companies of artillery.
Fort McIntosh.....	Will County, Tex., on Rio Grande, three-quarters mile from Laredo.....	27 80	99 29	208 acres more or less.....	Two companies infantry and one troop of cavalry.
Fort McKinney.....	Wyoming, 135 miles from Douglas City, on Fremont, Elkhorn and Missouri Valley Railroad.....	44 23	106 46	40 square miles.....	Two troops of cavalry.
Fort Meade.....	Dakota, 30 miles from Rapid City, on Fremont, Elkhorn and Missouri Valley Railroad.....	44 22	103 43	About 1½ square miles.....	Headquarters, six troops cavalry, and four companies infantry.
Fort Mifflin.....	Mud Island, Delaware River, Pennsylvania, 5 miles from Philadelphia.....	39 53	75 13	About 317 acres.....	Ordnance sergeant.
Fort Missoula.....	Montana, 4 miles from Missoula, on Northern Pacific Railroad.....	46 50	114 50	1 square mile and 560 acres.....	Headquarters and four companies of infantry.
Fort Mojave.....	Arizona, on Colorado River, 25 miles from "The Needles," Cal., on Atlantic and Pacific Railroad.....	35 2	114 36	5,532½ acres.....	One company of infantry.
Fort Monroe.....	Old Point Comfort, Va.....	37 0	76 18	About 232 acres.....	Ordnance detachment, five companies artillery.
Fort Montgomery.....	Rosse's Point, N. Y.....	45 0	73 20	600 acres.....	Ordnance sergeant.
Fort Morgan.....	Mobile Point (Alabama), 30 miles from Mobile.....	30 14	88 0	322 42 acres.....	Do.
Fort Moultrie.....	Sullivan's Island, South Carolina, 5 miles from Charleston.....	32 45	79 51	No reservation; 4 acres held.....	Do.
Mount Vernon Barracks.....	One-half mile from Mount Vernon, Ala.....	81 12	88 2	1,500 acres.....	Two companies artillery.
Fort Myer.....	Arlington, Va.....	38 53	77 3	38.15 acres.....	Two troops of cavalry.
Newport Barracks.....	Newport, Ky.....	39 5	84 30	About 6 acres.....	One company of artillery.
New Post.....	Near Newport, Ky.....	39 5	84 30	About 111 acres.....	Two companies of infantry.
Fort Niagara.....	Youngstown, Niagara County, N. Y., 7 miles from Lewiston.....	43 18	79 8	28½ acres.....	Headquarters, two troops cavalry, and six companies infantry.
Fort Niobrara.....	Nebraska, 4½ miles from Valentine, on Fremont, Elkhorn and Missouri Valley Railroad.....	42 53	100 46	About 5½ square miles.....	Headquarters, and ten companies of infantry.
Fort Omaha.....	4 miles from Omaha, Nebr.....	41 20	96 0	41.51 acres.....	One company of infantry.
Fort Ontario.....	Oswego, N. Y.....	43 28	76 80	75 acres.....	Two companies of infantry.
Fort Pembina.....	Near Pembina, Dak., 2 miles from St. Vincent, on St. Paul, Minneapolis and Manitoba Railroad.....	48 57	97 0	About 1,920 acres.....	One troop of cavalry.
Camp Pena Colorado.....	Presidio County, Tex., on Galveston, Harrisburgh, and San Antonio Railroad, 4 miles from Marathon, Fort Point, Mass.....	80 15	103 13	Rented by the United States.....	Ordnance sergeant.
Fort Phenix.....	Santa Rosa Island, Florida, 10 miles from Pensacola.....	41 38	70 55	2 acres.....	Commanding officer, Fort Barrancas Fla.
Fort Pike.....	Petites Coquilles Island, Louisiana, 7 miles from Lake Catherine Station, on the Louisville and Nashville Railroad.....	80 19	87 17	All of Santa Rosa Island (unsurveyed), All the public land within 1,200 yards of post.....	Ordnance sergeant.
Camp Pilot Butte.....	Rock Springs.....	30 11	89 38	No reservation.....	Two companies of infantry.
Plataburgh Barracks.....	Near Plataburgh, N. Y.....	41 12	111 0	About 200 acres.....	One company of infantry.
Fort Popham.....	Huntwell's Point, Maine, 10 miles from Bath.....	44 41	78 25	2½ acres.....	Ordnance sergeant.
Camp Poplar River.....	Montana, Poplar River Station, on Saint Paul, Minneapolis and Manitoba Railroad.....	45 50	69 55	On Indian Reservation; no military reservation.....	Two companies of infantry.
		46 6	105 12		

C.—Statement of the military reservations in the several States and Territories, showing location, size, and how occupied—Continued.

Station.	Location.	Latitude. ° ' "	Longi- tude. ° ' "	Size of reservation.	How occupied.
Fort Porter.....	Buffalo, N. Y.	42 53	78 52	About 23 acres.....	Two companies of infantry.
Fort Probie.....	Spring Point, Maine, 3½ miles from Portland.....	43 39	70 14	About 24 acres.....	One company of artillery.
Presidio of San Francisco.....	California, 4½ miles from San Francisco.....	37 48	122 21	1,382.23 acres.....	Headquarters, two troops cavalry, two companies of infantry, and seven companies artillery.
Fort Pulaski.....	Cochepur Island, Georgia, 14 miles from Savannah.....	32 2	80 34	Not surveyed.....	Ordnance sergeant.
Fort Randall.....	Dakota, on Missouri River, 45 miles from Springfield, in Chicago Military and St. Paul Railroad.....	43 1	98 33	About 14 square miles.....	Four companies of infantry.
Fort Reno.....	Indian Territory; 32 miles from Oklahoma station, on Southern Kansas branch of Atchison, Topeka and Santa Fe Railroad.....	35 34	98 1	9,493 acres.....	Headquarters, two companies infantry, and four troops cavalry.
Fort Riley.....	Kansas, on Kansas River, 3½ miles from Junction City.....	39 4	96 47	20,000 acres.....	Headquarters and eight troops of cavalry.
Fort Ringgold.....	Texas, on the Rio Grande, 23 miles from San Miguel, Mexico, on Mexican National Railroad.....	26 23	98 47	350 acres.....	Two companies of infantry and one troop of cavalry.
Fort Robinson.....	White River, Nebraska.....	42 40	103 28	20 square miles.....	Headquarters, four troops cavalry, and four companies of infantry.
San Antonio.....	Bexar County, Tex.....	39 30	99 33	162.21 acres.....	Headquarters, three troops cavalry, four companies of infantry, and one company of artillery.
San Carlos.....	Arizona, on San Carlos River, 102 miles from Bowie, on Southern Pacific Railroad.....	33 10	110 25	On Indian reservation.....	Two companies infantry and three troops cavalry.
San Diego Barracks.....	San Diego Harbor, California.....	32 43	117 9	About 2.75 acres.....	One company of infantry.
Sandy Hook.....	New Jersey.....	40 25	74 1	About 1,366 acres.....	Ordnance sergeant.
Fort Scammel.....	Portland Harbor, Maine.....	43 39	79 13	11 acres.....	Do.
Fort Schuyler.....	Throgg's Point, New York, 3¼ miles from West Chester, 17 miles from New York City.....	40 49	73 42	53 acres.....	Two companies of artillery.
Fort Selden.....	Southern New Mexico, near Rio Grande.....	32 27	106 53	15 square miles.....	Small detachment.
Fort Sewall.....	Massachusetts, 14 miles from Marblehead.....	42 30	70 33	Small tract and in litigation.....	Not garrisoned.
Fort Shaw.....	Montana, on Sun River, 17½ miles from Cascade, on Montana Central Railroad.....	47 30	111 48	29,982 acres.....	Three companies of infantry.
Camp Sheridan.....	Nebraska, Beaver Creek, 8 miles from Cinnabar, on Yellowstone Park Line of Northern Pacific Railroad.....	42 51	102 39	25 square miles.....	One troop of cavalry.
Fort Sherman.....	Idaho, near Spokane River, one-half mile from Cour d'Alene Branch of Northern Pacific Railroad.....	77 42	116 38	1 square mile.....	Headquarters, four companies of infantry and one troop of cavalry.
Ship Island.....	Mississippi, 15 miles from Biloxi.....	30 20	89 7	.....	Ordnance sergeant.
Fort Sidney.....	Cheyenne County, Nebr., on Union Pacific Railroad.....	41 9	102 58	1 square mile; timber and wood reservation, 5 square miles.....	Headquarters and four companies of infantry.
Fort Sill.....	Indian Territory, 65 miles from Henrietta, Tex., on Fort Worth and Denver Railroad.....	30 40	98 28	36 square miles.....	Six troops of cavalry and one company of infantry.

Fort Siasaton.....	45	39	97	30	128 square miles.....	One company of infantry.
Fort Snelling.....	44	53	93	5	1,521.21 acres.....	Headquarters, five companies infantry and one company of artillery.
Fort Spokane.....	47	50	118	18	About 1 square mile.....	Five companies of infantry and two troops of cavalry.
Fort Sheridan.....	33	30	105	32	598.5 acres.....	Three companies of infantry.
Fort Stanton.....	46	31	125	1	16 square miles.....	Two troops of cavalry and one company of infantry.
Fort Stevens.....	20	53	81	17	640 acres.....	Not garrisoned.
Fort Santa Philip.....	29	25	89	30	640 acres.....	Two companies of infantry.
Fort Sully.....	44	20	100	10	About 27,275 acres.....	Ordinance sergeant.
Fort Sumter.....	32	45	79	51	About 125 acres.....	Four companies of infantry.
Fort Supply.....	36	29	99	37	63 square miles.....	Ordinance sergeant.
Fort Taylor.....	24	31	81	49	About 200 acres.....	Headquarters, three troops cavalry, and three companies of infantry.
Fort Thomas.....	32	51	109	48	10,467.5 acres.....	Ordinance sergeant.
Fort Totten.....	47	59	99	0	11.19 square miles.....	One troop cavalry and one company of infantry.
Fort Townsend.....	48	1	122	44	About 615.10 acres.....	Two companies of infantry.
Fort Trumbull.....	41	21	72	0	13½ acres.....	Two companies of artillery.
Fort Union.....	35	54	105	9	5½ square miles; timber reservation, 50 square miles.	Headquarters, four companies infantry and one troop cavalry.
Vancouver Barracks.....	45	40	122	30	1 square mile, 166 acres, ordinance depot.	Headquarters; seven companies of infantry and one company of artillery.
Fort Verde.....	34	32	111	53	9,283.79 acres.....	One troop of cavalry.
Fort Wadsworth.....	40	30	74	3	About 100 acres.....	One company of artillery.
Fort Walla Walla.....	46	4	118	21	About 613 acres.....	Headquarters and five troops of cavalry.
Fort Warren.....	42	19	70	59	About 18 acres.....	Two companies of artillery.
Fort Washakie.....	42	59	108	54	About 1,405 acres.....	One troop of cavalry and two companies of infantry.
Washington Barracks.....	38	52	77	1	About 69 acres.....	Headquarters and six companies of artillery.
Fort Washington.....	38	43	77	6	About 50 acres.....	Ordinance sergeant.
Fort Wayne.....	42	23	71	8	About 63 acres.....	Headquarters and four companies of infantry.
West Point.....	41	24	74	41	About 2,100 acres.....	Engineer battalion.
Whipple Barracks.....	34	33	112	27	About 1,790 acres.....	Headquarters and five companies of infantry.
Wilets Point.....	40	47	73	47	136 acres.....	Headquarters and four companies of engineers.
Fort Winfield Scott.....	37	49	122	48	1,382.22 acres.....	Not garrisoned.
Dakota, 17 miles from Britton, on the Chicago, Milwaukee and Saint Paul Railroad.						
Minnesota.....						
Washington Territory, 50 miles from Sprague, on the Northern Pacific Railroad.						
Near Chicago, Ill.....						
New Mexico, on Rio Bonito, N. Mex., 120 miles from Carthage, on Atchison, Topeka and Santa Fe Railroad.						
Point Adams, on Columbia River, Oregon.						
Florida. Railroad station, Saint Augustine.						
Louisiana, 73 miles from New Orleans.						
Drake, on Missouri River, 25 miles from Pierre, on Chicago and Northwestern Railroad.						
Charleston Harbor, 9 miles from Charleston, S. C.						
Indian Territory, 13½ miles from Woodward, on Southern Kansas Railroad.						
Near Whitehead's Point, Florida.						
Arizona, one-half mile from Gila River.						
Devil's Lake, Dakota, 16 miles from Minnewaukan, on Jamestown Branch of Northern Pacific Railroad.						
Washington Territory, 8 miles from Port Townsend.						
Connecticut, 1 mile from New London.						
New Mexico, 9 miles from Watrous, on Atchison, Topeka and Santa Fe Railroad.						
Washington Territory, on Columbia River.						
Yavapai County, Ariz., 45 miles from Prescott, on P. and A. C. Railroad.						
Staten Island, New York Harbor.						
Near Walla Walla, Wash.						
George's Island, Boston Harbor, 7 miles from Boston.						
Wyoming, 147 miles from Rawlins, on Union Pacific Railroad.						
Washington, D. C.						
On Potomac River, 13 miles from Washington, D. C.						
Michigan, on Detroit River, 4 miles from Detroit.						
New York, on Hudson River.						
Near Prescott, Ariz.						
Long Island, Queen's County, New York, 2½ miles from Whitestone.						
Golden Gate, San Francisco, Cal.						

C.—Statement of the military reservations in the several States and Territories, showing location, size, and how occupied—Continued.

Station.	Location.	Latitude.	Longitude.	Size of reservation.	How occupied.
Fort Porter.....	Buffalo, N. Y.	42 53	78 52	About 28 acres.....	Two companies of infantry.
Fort Preble.....	Spring Point, Maine, 3½ miles from Portland.....	43 39	70 14	About 24 acres.....	One company of artillery.
Freddieo of San Francisco..	California, 4½ miles from San Francisco.....	37 48	122 31	1,362.23 acres.....	Headquarters, two troops cavalry, two companies of infantry, and seven companies artillery.
Fort Pulaski.....	Cockspur Island, Georgia, 14 miles from Savannah.....	32 2	80 34	Not surveyed.....	Ordnance sergeant.
Fort Randall.....	Dakota, on Missouri River, 45 miles from Springfield, on Chicago, Milwaukee and St. Paul Railroad.	43 1	98 33	About 144 square miles.....	Four companies of infantry.
Fort Reno.....	Indian Territory, 32 miles from Oklahoma station, on Southern Kansas branch of Atchafson, Topeka and Santa Fe Railroad.	35 34	98 1	9,493 acres.....	Headquarters, two companies infantry, and four troops cavalry.
Fort Riley.....	Kansas, on Kansas River, 3½ miles from Junction City.	39 4	96 47	20,000 acres.....	Headquarters and eight troops of cavalry.
Fort Ringgold.....	Texas, on the Rio Grande, 23 miles from San Miguel, Mexico, on Mexican National Railroad.	26 23	98 47	350 acres.....	Two companies of infantry and one troop of cavalry.
Fort Robinson.....	White River, Nebraska.....	42 40	103 28	20 square miles.....	Headquarters, four troops cavalry, and four companies of infantry.
San Antonio.....	Bexar County, Tex.....	39 30	99 33	162.21 acres.....	Headquarters, three troops cavalry, four companies of infantry, and one company of artillery.
San Carlos.....	Arizona, on San Carlos River, 102 miles from Bowie, on Southern Pacific Railroad.	33 10	110 25	On Indian reservation.....	Two companies infantry and three troops cavalry.
San Diego Barracks.....	San Diego Harbor, California.....	32 43	117 9	About 2.75 acres.....	One company of infantry.
Sandy Hook.....	New Jersey.....	40 25	74 1	About 1,366 acres.....	Ordnance sergeant.
Fort Scammel.....	Portland Harbor, Maine.....	43 39	79 13	11 acres.....	Do.
Fort Schuyler.....	Throg's Point, New York, 3½ miles from West Chester, 17 miles from New York City.	40 49	73 42	53 acres.....	Two companies of artillery.
Fort Selden.....	Southern New Mexico, near Rio Grande.....	32 27	106 53	15 square miles.....	Small detachment.
Fort Sewall.....	Massachusetts, 14 miles from Marblehead.....	42 30	70 33	Small tract and in litigation.	Not garrisoned.
Fort Shaw.....	Montana, on Sun River, 17½ miles from Cascade, on Montana Central Railroad.	47 30	111 48	29,982 acres.....	Three companies of infantry.
Camp Sheridan.....	Nebraska, Bear Creek, 8 miles from Cinnabar, on Yellowstone Park Line of Northern Pacific Railroad.	42 51	102 39	25 square miles.....	One troop of cavalry.
Fort Sherman.....	Idaho, near Spokane River, one-half mile from Clear & Alene Branch of Northern Pacific Railroad.	77 42	116 38	1 square mile.....	Headquarters, four companies of infantry and one troop of cavalry.
Ship Island.....	Mississippi, 15 miles from Biloxi.....	30 20	89 7	.....	Ordnance sergeant.
Fort Sidney.....	Cheyenne County, Nebr., on Union Pacific Railroad.	41 9	102 58	1 square mile; timber and wood reservation, 6 square miles.	Headquarters and four companies of infantry.
Fort Sill.....	Indian Territory, 65 miles from Henrietta, Tex., on Fort Worth and Denver Railroad.	36 40	98 23	36 square miles.....	Six troops of cavalry and one company of infantry.

6.—*Report of Major James Gilliss, quartermaster, U. S. Army, of the operations of the transportation, regular supplies, and miscellaneous claims and accounts branches of the Quartermaster-General's Office, during the fiscal year ending June 30, 1888.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 26, 1888.

GENERAL: I have the honor to submit the following report of the operations of this office pertaining to transportation, regular and miscellaneous supplies, contracts and purchases, and miscellaneous claims and accounts, during the fiscal year ending June 30, 1888.

TRANSPORTATION.

From the records of this branch it appears that during the year ending June 30, 1888, the Quartermaster's Department provided transportation by rail, water, wagon, and stage, for 366,012 persons (including 326,633 transported or ferried by Government vessels), 1,677 animals, and 115,629 tons of material, as exhibited in statement hereto appended marked A.

The larger movements of troops are set forth in statement marked B, and may be briefly stated as follows, the expenses incident thereto payable from the appropriation for Army transportation 1888, being given in each case. The amounts inuring to land-grant and bond-aided railroads are not included, as no payments are made to these railroads from the Army transportation appropriation :

Third Cavalry.—Four troops, from Department of the Missouri to Department of Texas; and interchange of stations with the Eighth Cavalry within the Department of Texas of the headquarters and remaining eight troops, transfers made by marching, costing \$8,243.70.

Fourth Cavalry.—One troop from Department of Arizona to Department of the East, costing \$4,281.15.

Fifth Cavalry.—Four troops, change of stations within Department of the Missouri, troops marching, costing \$2,373.95.

Sixth Cavalry.—One troop from Department of the Missouri to Department of the East, costing \$3,372.42.

Seventh Cavalry.—Entire regiment from Department of Dakota to Department of the Missouri, troops marching, costing \$7,746.52.

Eighth Cavalry.—Headquarters and ten troops, interchange of stations with the Third Cavalry, by marching within the Department of Texas, costing \$6,764.74.

Eighth Cavalry.—En route from the Department of Texas to Department of Dakota, troops marching, costing \$4,096.81 from the appropriation for 1888, and about \$10,000 from the appropriation for 1889, the movement not having been completed in the fiscal year ending June 30, 1888.

First Artillery.—One battery, Department of California to Department of the East, costing \$747.02; and one battery, Department of the East to Department of California, costing \$583.42.

Third Infantry.—Entire regiment from posts in Montana to posts in Dakota and Minnesota, interchanging stations with the Twenty-fifth Infantry, within the Department of Dakota, costing \$19,710.98.

Fifth Infantry.—Entire regiment from Department of Dakota to Department of Texas, costing \$20,814.44 from appropriation for 1888, and \$460.61 from appropriation for 1889.

Sixth Infantry.—Six companies from Department of the Platte to Department of the Missouri, costing \$7,517.

Eleventh Infantry.—From Department of Dakota to Department of the East, costing \$15,480.02.

Twelfth Infantry.—From Department of the East to Department of Dakota, costing \$12,029.57.

Thirteenth Infantry.—Headquarters and nine companies from Department of Arizona to Department of the Missouri, costing \$14,199.02.

Fourteenth Infantry.—One company from Department of the Columbia to Department of the Missouri, passing over bond-aided Pacific railroads, at no cost to the appropriation for Army transportation.

Sixteenth Infantry.—From Department of Texas to Department of the Platte, costing \$12,820.66.

Twenty-second Infantry.—Headquarters and nine companies from Department of the Missouri and one company from Department of Arizona to Department of Dakota, costing \$19,656.11.

Twenty-fourth Infantry.—From Department of the Missouri to Department of Arizona, costing \$20,756.18.

Twenty-fifth Infantry.—From posts in Minnesota and Dakota to posts in Montana, interchanging stations with the Third Infantry within the Department of Dakota, costing \$20,988.67.

It thus appears that the sum of \$202,185.68 was drawn from the Army transportation appropriation for 1888, to defray the expenses of these movements; of this sum the amount of \$147,505.59 was expended for the movements directed by General Orders No. 20, Adjutant-General's Office, April 13, 1888.

The transportation necessary for these movements has as a rule been secured by the Quartermaster's Department at special rates lower than the ordinary rates charged by the tariffs of the railroads, and it is estimated that the saving on this account has amounted to the sum of \$50,000, at least, or a reduction of about 25 per cent. from the amount which would have accrued at tariff rates.

The contractors' steamer *General Terry*, having four companies of the Fifth Infantry on board bound from Bismarck, Dak., to Kansas City, Mo., via the Missouri River, struck a pier of the Union Pacific Railroad bridge near Omaha, Nebr., and sank within a few hours. No lives were lost and the troops continued their journey to Texas by railroad.

With this exception no accident has been reported in connection with these extensive movements, and no complaints have been reported of insufficient accommodations or unnecessary delays, and the several officers of the Quartermaster's Department under whose immediate direction and supervision the work was satisfactorily and economically performed should share with the transportation companies in the praise to be accorded for the successful execution of the orders directing the movements.

RAILROAD TRANSPORTATION.

Thirty-three thousand eight hundred and sixty-eight persons, 1,554 animals, and 55,683 tons of material were transported by railroad under the direction of the Quartermaster's Department during the year.

The cost of this service as reported is as follows:

By payments out of the appropriation for transportation of the Army:		
For transportation of persons.....	\$189,437.60	
For transportation of live stock and freight.....	316,346.25	
Accounts outstanding at close of fiscal year.....	228,307.85	
		\$734 091.70
By credit on account of the indebtedness of bonded Pacific railroads:		
For transportation of persons.....	176,932.98	
For transportation of live stock and freight.....	315,493.34	
		492,426.32
By payments to land-grant railroads out of special appropriations for the purpose		50,000.00
Total cost of railroad transportation for the Army during the fiscal year ending June 30, 1888.....		1,276,518.02

BONDED PACIFIC RAILROADS, THEIR BRANCHES AND LEASED LINES.

Nine thousand two hundred and ninety-two persons, 605 animals, and 19,154 tons of material were transported for the Department over the bonded Pacific railroads, their branches and leased lines during the year.

The service performed by each road is shown in the following table :

Company.	Persons transported.	Animals transported.	Freight transported.
	<i>Number.</i>	<i>Number.</i>	<i>Pounds.</i>
Union Pacific	6,117	352	24,345,811
Central Branch, Union Pacific.....	4		2,087
Central Pacific (branches and leased lines) operated by the Southern Pacific Company	2,481	249	12,621,868
Sioux City and Pacific.....	600	4	1,338,373
Total.....	9,202	605	38,308,138

The amounts which will inure for this service to the credit of the respective railroads upon the books of the Treasury, computed at the full rates of their published tariffs, aggregated \$492,426.32.

The amount inuring to each road is shown in the following table :

Company.	Amount of accounts referred to the Treasury for settlement.	Estimated amount of accounts not rendered.	Portion inuring for troops.	Portion inuring for stores.	Proportion subsidized.	Proportion unsubsidized.	Total amount.
Union Pacific ..	\$165,986.19	\$115,527.96	\$119,967.06	\$161,547.09	\$208,182.28	\$73,331.89	\$281,514.15
Central Branch, Union Pacific.	38.70	10.90	20.31	20.29	33.47	16.13	49.60
Central Pacific, operated by the Southern Pacific Company	142,811.59	65,803.60	55,515.57	153,099.62	37,908.57	170,706.62	208,615.19
Sioux City and Pacific	1,862.81	385.07	1,430.04	817.84	1,749.71	497.67	2,247.38
Total	310,698.79	181,727.53	176,932.98	315,493.34	247,874.01	244,552.31	492,426.32

The following statement shows the amount of the accounts of the Pacific railroad companies which during the year were prepared by the Quartermaster's Department, acted upon in this office, and referred to the Treasury for settlement, in the aggregate amount \$310,698.79:

Company.	Amount received during fiscal year.	Amount referred for settlement during fiscal year.
Union Pacific.....	\$165,986.19	\$165,986.19
Central Branch, Union Pacific.....	38.70	38.70
Central Pacific, operated by the Southern Pacific Company.....	142,811.59	142,811.59
Sioux City and Pacific.....	1,862.31	1,862.31
Total	310,698.79	310,698.79

Of the above amount (\$310,698.79) accounts aggregating \$5,628.17 were for transportation performed under the provisions of the law of July 5, 1884, for other Departments of the Government, as follows :

Company.	For what Department.			Total.
	Treasury.	Navy.	Interior.	
Union Pacific.....	\$1,057.26	\$1,706.00	\$224.94	\$2,988.20
Central Branch, Union Pacific.....			1.33	1.33
Central Pacific, operated by the Southern Pacific Company	1,434.43	1,059.81	115.08	2,609.32
Sioux City and Pacific.....			29.32	29.32
Total.....	2,491.69	2,765.81	370.67	5,628.17

In the Treasury, accounts of these companies amounting in the aggregate to \$99,553.49 awaited settlement at the close of the fiscal year, to wit:

Of the Union Pacific Railway Company..... \$67,885.38
 Of the Southern Pacific Company (Pacific system)..... 31,385.70
 Of the Sioux City and Pacific Railway Company..... 282.41

The following table shows the total settlement upon accounts adjusted in the Quartermaster-General's Office and the Treasury Department, as indicated by the records of this office, for military transportation over these roads, from the date when they were first opened for traffic up to the close of the fiscal year ending June 30, 1888:

	Union Pacific.	Central Pacific.	Kansas Pacific.	Sioux City and Pacific.	Central Branch Union Pacific.	Total.
Paid in cash, under act of July 2, 1864.....	\$1,693,360.69	\$261,106.21	\$881,733.98	\$4,078.23		\$2,840,279.11
Credited on bonds, under act of July 2, 1864.....	1,693,360.87	261,010.20	881,733.98	7,108.16		2,843,213.30
Withheld under act of March 3, 1873....	3,219,311.09	691,132.83	950,232.06	49,509.12	64.01	4,910,249.71
Withheld under act of May 7, 1878.....	3,753,362.63	2,040,338.95				5,793,701.58
Withheld and reported to Congress.....		505,231.81				505,231.81
Credited under agreement with company.....	181,836.61		34,889.79	8,935.83	83.01	228,745.24
Total.....	10,544,231.89	3,758,820.09	2,748,590.41	69,631.34	147.02	17,121,420.75

Settlement of the accounts of the bonded Pacific railroads has continued to be made during the year under the provisions of the circular of the honorable the Secretary of the Treasury of June 23, 1887, a synopsis of which was published in the last annual report of the Quartermaster-General.

LAND-GRANT RAILROADS.

The sum of \$50,000 was appropriated for military transportation performed during the fiscal year over certain land-grant railroads in the act approved February 9, 1887, making appropriation for the support of the Army, to wit:

For the payment of Army transportation lawfully due such land-grant railroads as have not received aid in Government bonds, to be adjusted by the proper accounting

officers, in accordance with the decisions of the Supreme Court in cases decided under such land-grant acts, but in no case shall more than fifty per centum of the full amount of the service be paid; fifty thousand dollars: *Provided*, That such compensation shall be computed upon the basis of the tariff rates for like transportation performed for the public at large, and shall be accepted as in full for all demands for such services.

The following is a statement showing payments made during the fiscal year ending June 30, 1888, for military transportation over land-grant railroads, upon accounts adjusted in the Quartermaster-General's Office, and settled through the accounting officers of the Treasury, being 50 per cent. of the tariff rates for like transportation performed for the public at large as prescribed by law appropriating money for their payment:

Name of company.	For services during fiscal year ending June 30—			Total.
	1886.	1887.	1888.	
Alabama and Great Southern.....			\$3. 72	\$3. 72
Atchison, Topeka and Santa Fé.....	\$15. 62	\$17, 139. 78	11, 134. 13	28, 289. 53
Baltimore and Ohio.....			14. 04	14. 04
Baltimore and Potomac.....			1. 73	1. 73
Chesapeake and Ohio.....			. 49	. 49
Chicago, Burlington and Northern.....			1. 81	1. 81
Chicago, Burlington and Quincy.....		315. 00	154. 73	469. 73
Chicago, Milwaukee and Saint Paul.....		478. 54	524. 10	1, 002. 64
Chicago and Northwestern.....	4. 62	1, 897. 37	3, 036. 78	4, 938. 77
Chicago, Rock Island and Pacific.....		2, 847. 60	876. 05	3, 723. 65
Chicago, Saint Louis and Pittsburgh.....	1. 36			1. 36
Chicago, Saint Paul, Minneapolis and Omaha.....		1, 365. 91	2, 476. 20	4, 842. 11
Cincinnati, Indianapolis, Saint Louis and Chicago.....		4. 38	5. 74	10. 12
Cincinnati, New Orleans and Texas Pacific.....	. 26	2. 62	12. 89	15. 77
East Tennessee, Virginia and Georgia.....			4. 51	4. 51
Florida Railway and Navigation.....		25. 64	13. 98	39. 62
Galveston, Harrisburg and San Antonio.....	. 21	248. 60	42. 71	291. 58
Grand Rapids and Indiana.....	2. 45	1. 54		3. 99
Hannibal and Saint Joseph.....			14. 73	15. 50
Illinois Central.....		642. 17	320. 12	962. 29
Jacksonville, Tampa and Key West.....			3. 02	3. 02
Kansas City, Saint Joseph and Council Bluffs.....			1. 51	1. 51
Lake Shore and Michigan Southern.....			6. 93	6. 93
Louisville and Nashville.....		333. 65	643. 56	977. 21
Minneapolis and Saint Louis.....			7. 68	7. 68
Missouri Pacific.....		532. 66	439. 63	972. 29
Mobile and Ohio.....	1. 00	57. 62	72. 00	130. 62
Morgan's Louisiana and Texas Railroad and Steamship.....		103. 03	109. 90	213. 02
Newport News and Mississippi Valley.....			. 52	. 52
New York Central and Hudson River.....			5. 95	5. 95
New York, Lake Erie and Western.....			22. 25	22. 25
New York, Ontario and Western.....			3. 45	3. 45
Northern Pacific.....		1, 602. 84	2, 351. 41	3, 953. 75
Ohio and Mississippi.....			12. 79	12. 79
Oregon Railway and Navigation.....		. 03		. 03
Pennsylvania Company.....		. 05	7. 61	7. 66
Pennsylvania Railroad.....		33. 04	23. 08	56. 12
Richmond and Danville.....			3. 84	3. 84
Saint Louis, Alton and Terre Haute.....			1. 12	1. 12
Saint Louis and Cairo Short Line.....		5. 30		5. 30
Saint Louis and San Francisco.....		1, 449. 93	2, 388. 61	3, 838. 54
Saint Paul and Duluth.....	2. 49		1. 26	3. 75
Savannah, Florida and Western.....			4. 88	4. 88
South Florida.....			2. 61	2. 61
Southern Kansas.....	8. 22	252. 12	329. 29	1, 289. 63
Texas and New Orleans.....			1. 38	1. 38
Texas and Pacific.....		. 52	2. 13	2. 65
Vandalia Line.....		1. 54	3. 54	5. 08
Wabash, Saint Louis and Pacific.....		18. 88		18. 88
Wabash Western.....			9. 63	9. 63
Wisconsin Central.....			1. 10	1. 10
Total.....	36. 23	30, 060. 27	26, 099. 33	56, 195. 83

* For transportation over connecting land-grant railroads.

WATER TRANSPORTATION.

There were carried by water during the fiscal year ending June 30, 1888, 2,892 persons, 123 animals, and 11,494,445 pounds of freight, not including 326,633 persons and 2,097,994 pounds of freight transported or ferried on United States vessels controlled or operated by the Quartermaster's Department. The cost of this service by payment under special and annual contracts, by payment for the charter and employment of vessels belonging to private parties, by payment to commercial lines as common carriers, and by payment for the operation, maintenance, and repair of vessels belonging to the United States, aggregate the sum of \$197,088.92, of which \$11,748.77 was due and unpaid at close of the fiscal year.

During the fiscal year the following named vessels, owned by the War Department, have been in service of the Quartermaster's Department, viz :

Steamer *Chester A. Arthur*, purchased June 30, 1876, for \$26,000, employed in New York Harbor. This steamer has been run (manned and victualled) under contract during the past year, fuel furnished by the United States. The cost of repairs to this steamer during the year was but \$109.75; the cost of running expenses, including fuel, was \$12,305.74.

Propeller *Ordnance*, purchased June 30, 1876, for \$18,000, in service in New York Harbor, run (manned and victualled) under contract during the past year, fuel furnished by the United States; cost of repairs during the fiscal year was \$5,831.65. For running expenses, including fuel, \$6,643.75. This vessel has been employed in service of the Ordnance Department exclusively.

Steam-tug *Resolute*, purchased November 14, 1879, for \$17,947.46; employed in Boston Harbor, Massachusetts. The cost of repairs during the year was \$3,995.26; of running expenses, \$8,252.40.

Steam-tug *Atlantic*, purchased October 13, 1878, for \$13,865.56; employed between Governor's Island and New York Harbor, and the Battery, New York. During the year \$501.64 have been expended for repairs and \$10,405.57 for running expenses. This steamer is available for putting out fires on the island, should they occur, being fitted with pumps designed for that purpose.

Steam-launch *Monroe*, purchased November 30, 1875, for \$15,200; employed at Fort Adams, R. I. The sums of \$9.94 for repairs and \$2,050.25 for running expenses have been expended during the past year.

Steam-launch *Thayer*, purchased October 8, 1874, for \$7,200; employed for various periods of service at Governor's Island, David's Island, Forts Hamilton and Wadsworth, New York Harbor. The cost of repairs to this vessel during the fiscal year was \$730.07, and for running expenses \$1,016.45.

Steam-launch *Barrancas*, purchased November 7, 1874, for \$5,750; employed at Fort Barrancas, Fla.; cost of repairs during the past year was \$922.07; for running expenses the sum of \$2,728.19 was expended.

Propeller *General Wool*, purchased September 1, 1883, for \$27,870.80. The cost of repairs during the year was \$835.05, and for running expenses \$4,235.03; employed at Fort Monroe, Va., between the fort and Norfolk, Va., also in rendering relief to vessels in distress.

Sloop *Belle of the Bay*, purchased July 25, 1882, for \$275; stationed at St. Francis Barracks, Florida. No amounts have been reported during the past fiscal year for repairs or running expenses to this sloop.

Propeller *General McDowell*, purchased November 17, 1886, for \$56,150; employed in San Francisco Harbor, California. The cost of repairs to this steamer during the year was \$3,330.43, and the sum of \$25,138.26 was expended for running expenses.

Steam-launch *Amelia Wheaton*, purchased August 20, 1880, for \$8,000; stationed at Fort Sherman, Idaho. No service reported. This vessel is reported to have been sunk about 3½ miles up the St. Joseph River, while on her way to the head of navigation of that stream to bring down a raft of logs, November 26, 1887. She was raised, made fast to a barge, and towed back to her landing. No repairs have been made during the year. The sum of \$681.83 has been expended for expenses, which includes \$500 for towing vessel and floating her.

Upon recommendation of the assistant adjutant-general, Division Pacific, and the Quartermaster-General, her sale at public auction has been authorized by the Secretary of War.

Steam-launch *Hamilton*, purchased February 1, 1875, for \$7,800; employed at David's Island, New York Harbor. During the year the sum of \$4,045.72 has been expended for repairs, which include new boiler and condenser, and \$3,071.66 paid for running expenses.

The U. S. schooner *Matchless*, transferred to the U. S. Coast and Geodetic Survey upon conditions stated in annual report for 1885, has remained in that service during the past fiscal year, no emergency having arisen rendering her retransfer to the Quartermaster's Department necessary or desirable.

The steam-ship *Illinois*, owned by the War Department, and heretofore used by the Quartermaster's Department as a transport (but reported to be worn out and worthless for any sea service), was placed gratuitously at disposal of the quarantine commission, New York City, for an indefinite period, by joint resolution of Congress of May 23, 1870. (See General Orders No. 71, Adjutant-General's Office, of 1870.) On May 24, 1888, the president of the board having notified the Secretary of War that the board had no further use for the vessel, its sale at public auction was authorized and directed by the Secretary of War. The vessel was sold at public sale by the depot quartermaster, New York City, on June 14, 1888, for \$1,100.

A statement showing the vessels owned or purchased by the Government and employed in the Quartermaster's Department during the fiscal year is herewith, marked C.

The total cost of running, repairing, and maintaining these vessels, including the wages of crews during the year, as reported to this office, was \$96,840.71.

Twenty-one vessels of different kinds are reported by officers of the Quartermaster's Department to have been employed at various times under charter or by the trip, as the necessities of the service required, during the fiscal year, at an expense of \$35,025.55. Statement accompanying, marked D.

WAGON TRANSPORTATION.

One hundred and six million two hundred and ninety-four thousand nine hundred and eighty-five pounds of military property were transported by wagon during the fiscal year, and \$245,785.40 were paid to wagon contractors for services performed during the same period. The sum of \$39,643.10 was still due on outstanding accounts June 30, 1888.

One hundred and one contracts for wagon transportation made by officers of the Quartermaster's Department throughout the country were

received at this office during the year; an abstract of which, showing the names of contractors, routes of supply, date of each contract, and date of its expiration, and rates payable, accompanies this report, marked E.

STAGE TRANSPORTATION.

By stage 2,619 persons and 3,707 pounds of extra baggage were transported under direction of the Quartermaster's Department during the year, at a cost of \$22,144.16; of this sum \$3,352.25 remained due on outstanding accounts June 30, 1888.

TELEGRAPHING ON ARMY BUSINESS.

During the year the Quartermaster's Department has continued to prepare and settle the accounts of telegraph companies for messages sent on official military business. Five hundred and eight unpaid telegraph accounts, accruing during the fiscal years 1887 and 1888, amounting to \$4,290.32, also 47 accounts for re-imbursement to Army officers of amounts paid by them for telegrams on public business, amounting to \$73.23, were received at this office during the year, examined, and forwarded to the accounting officers of the Treasury for settlement. Of these accounts, 394, amounting to \$3,091.15, have been settled; leaving 114, amounting to \$1,199.17, remaining in the Treasury unsettled June 30, 1888.

The provisions of law under which these accounts have been adjusted remained the same as set forth in the last annual report of the Quartermaster-General.

A new basis of calculating distances was adopted by the Postmaster-General, fixing the rate of charge for telegraphic communications on and after July 1, 1887; the distance being in all cases regulated by the capital of the State or Territory from which the message is sent to the capital of the State or Territory in which the place of destination is located. For the convenience of officers of the Army a table of distance by capitals, together with the schedule of rates for Government telegrams, was published August 4, 1887, in General Orders No. 54, Adjutant-General's Office.

The cost of telegraphing for the Army during the fiscal year is reported at \$7,004.10.

INDEBTED RAILROADS.

The last annual report of the Quartermaster-General showed that three such roads remained with unadjusted accounts June 30, 1887, representing an aggregate of \$1,187,628 27.

The matters involved in the relations of these three roads to the United States remain unadjusted, nothing having been paid on their accounts during the fiscal year ending June 30, 1888.

The nature of the indebtedness of these roads was fully explained in the report of the Quartermaster-General for the year 1885, when legislative or legal action was recommended.

TRANSPORTATION FOR OTHER DEPARTMENTS.

The Quartermaster's Department has continued during the fiscal year to receive public property from other departments of the Government, and provide transportation therefor, as required by the act of Congress of July 5, 1884 (23 Stat., 111).

This service has been rendered for the various bureaus of the Treasury, Navy, and Interior Departments, and the accounts therefor adjusted through the bureaus of the Department to which they pertained.

APPROPRIATION FOR ARMY TRANSPORTATION, AND ITS DISBURSEMENT.

By act of June 30, 1887, the sum of \$2,800,000 was appropriated for Army transportation for the fiscal year ending June 30, 1888.

A compilation showing its disbursement by the officers of the Department, and by Treasury settlements, will appear in the report of the accounts branch of this office.

TRANSPORTATION ACCOUNTS AND CLAIMS.

Three thousand seven hundred and fifty transportation and telegraph accounts and claims, amounting to \$658,261.74, were adjusted through the transportation branch during the fiscal year ending June 30, 1888. Of these 3,733, amounting to \$651,877.19, were referred to the proper bureau or office for settlement; 5, amounting to \$1,078, were unfavorably reported upon and rejection recommended; 12, amounting to \$5,306.55, were awaiting action or under adjustment at close of the fiscal year.

REGULAR SUPPLIES BRANCH.

This branch has charge of all matters relating to the procurement and distribution of supplies furnished to the Army by the Quartermaster's Department, excepting clothing, camp and garrison equipage, and such other supplies as are assigned to the barracks and quarters branch, including means of transportation, horses for the cavalry and artillery, and other troops authorized to be mounted; to the procurement of the prescribed blank books and forms authorized by the regulations, and of conducting the necessary correspondence and keeping the necessary books and record of the transactions connected with the work of this branch.

This branch has also charge of matters relating to all contracts to which the Quartermaster's Department is a party.

REGULAR AND MISCELLANEOUS SUPPLIES.

ANIMALS.

The following statement shows the number of cavalry and artillery horses purchased during the fiscal year, their aggregate cost and average cost:

Cavalry and artillery horses purchased.

For what military division.	Number.	Total cost.	Average cost.
Division of the Atlantic.....	28	\$3,832.00	\$136.85
Division of the Missouri.....	689	89,553.35	138.86
Division of the Pacific.....	227	33,753.00	148.69
Total.....	924	127,138.35	137.59

The cavalry and artillery horses for the various divisions were purchased under authority of the Secretary of War, and were inspected by his direction, as required by him.

The following statement shows the number of draft and pack animals purchased during the fiscal year, their distribution, aggregate cost, and average cost:

Mules and team horses purchased.

For what department, depot, or post.	Horses.			Mules.		
	No.	Total cost.	Average cost.	No.	Total cost.	Average cost.
Division of the Atlantic	5	\$924.50	\$184.90	1	\$225.00	\$225.00
Department of Arizona	2	850.00	175.00			
San Francisco depot	2	500.00	250.00			
Saint Louis depot	5	790.00	158.00			
New York depot	9	2,142.50	238.05			
Jeffersonville depot	4	705.00	176.25	3	525.00	175.00
Columbus Barracks, Ohio	2	500.00	250.00	1	150.00	150.00
Atlanta, Ga.	1	140.00	140.00			
Total	30	6,052.00	201.73	5	900.00	180.00

The following is a summary of the number of animals purchased, sold, died, etc., during the fiscal year, and remaining on hand at its close, as indicated by reports received at this office:

	Cavalry and artillery horses.	Team horses.	Mules.	Oxen.
On hand July 1, 1887	8,776	435	5,400	6
Purchased	924	30	5	
Taken up	4		9	
Total to be accounted for	9,704	465	5,414	6
Sold	910	58	700	
Died	218	11	186	
Lost and stolen	5		10	
Erroneously reported on hand on previous reports	2,535	80	74	
Total sold, died, etc.	3,668	149	970	
On hand July 1, 1888	6,036	316	4,444	6

The following is a tabular statement of the sales of public animals in the different departments and at general and other depots during the fiscal year, as reported to this office, showing the number of each class sold and the total amount realized:

Where sold.	Cavalry and artillery horses.		Draft horses.		Mules.	
	No.	Amount.	No.	Amount.	No.	Amount.
Division of the Atlantic	18	\$1,272.00	11	\$634.70	13	\$906.50
Department of the Missouri	179	6,565.00			83	2,505.00
Department of Dakota	131	5,557.35	1	27.00	162	5,927.30
Department of the Platte	52	2,868.60			90	4,257.50
Department of Texas	105	5,108.40			73	2,260.75
Department of Columbia	51	1,892.25	6	170.50	48	1,133.00
Department of Arizona	277	12,224.03			170	6,854.71
Department of California	12	555.00	3	46.00	14	358.50
San Francisco depot	22	1,128.50	7	321.50	25	1,143.50
Saint Louis depot	1	30.00				
New York depot	5	325.00				
Washington depot	15	819.00	18	1,591.50	10	730.50
Jeffersonville depot	1	65.00	3	142.00	2	129.00
Columbus Barracks, Ohio			2	64.50	2	24.00
West Point, N. Y.	40	3,920.00	5	60.00	5	302.00
Jefferson Barracks, Missouri			1	66.50	3	63.50
Atlanta, Ga.	1	53.00	1	5.00		
Total	910	42,383.13	58	3,129.20	700	26,595.76

HARNESS.

Under authority of the Secretary of War harness was manufactured at Fort Leavenworth Military Prison for the Quartermaster's Department during the year as follows, viz :

Articles.	Num- ber.	Cost.			
		Material.	Civilian labor.	Prison labor.	Total.
Single sets harness, ambulance, wheel.....	224	\$3,431.61	\$342.48	\$537.00	\$4,311.29
Single sets harness, wagon, wheel.....	82	1,158.15	39.70	62.00	1,259.85
Single sets harness, wagon, lead.....	276	2,414.20	84.71	139.00	2,637.91
Single sets harness, ambulance, lead.....	235	3,255.48	304.18	476.00	4,035.66
Single sets harness, truck.....	8	130.48	11.09	19.00	160.57
Harness, wagon, express.....	2	13.94	4.14	6.00	24.08
Harness, cart.....	89	1,435.52	65.09	100.00	1,600.61
Single sets harness, express.....	10	236.66	15.92	25.00	277.58
Single sets harness, spring-wagon.....	2	36.87.	3.70	6.00	46.57
Single sets harness, spring-wagon.....	2	50.75	2.92	5.00	58.67
Halters and straps.....	795	8-8.84	63.48	97.00	1,049.32
Head-halters.....	681	563.91	59.41	76.75	700.07
Halter-straps.....	427	130.37	3.15	4.25	137.77
Hame-straps.....	410	23.24	3.49	5.00	31.73
Breast-straps.....	132	53.39	7.71	11.25	72.35
Pole-straps.....	7	5.09	1.71	2.13	8.93
Lines, check.....	44	19.87	3.11	5.50	28.48
Lines, ambulance, wheel, double.....	48	70.86	10.18	12.00	93.04
Lines, ambulance, wheel.....	103	159.61	11.46	19.50	190.57
Lines, ambulance, lead, double.....	50	116.83	9.15	12.50	138.48
Lines, ambulance, lead.....	44	94.58	4.58	7.75	106.91
Lines, ambulance, 6-horse.....	6	14.19	.95	1.75	16.89
Lines, cart, single.....	19	7.75	3.14	8.75	14.68
Lines (wagon harness), lead.....	12	19.78	1.31	2.25	23.34
Lines, cart.....	2	1.63	.09	.12	1.84
Lines, wagon (6-mule) lead, single.....	26	42.80	4.28	5.00	52.08
Bridles, riding.....	133	75.07	15.41	22.00	112.48
Bridles, driving.....	62	91.48	6.85	12.25	110.58
Bridles, driving or blind.....	2	3.47	.35	.50	4.32
Mantas.....	50	79.20	2.04	3.50	84.74
Bridle, riding, Whitman.....	1	4.38	.64	.75	5.77
Saddles, riding.....	72	464.45	63.82	100.25	628.52
Saddle-trees for cart harness.....	191	90.46	.....	73.50	163.96
Saddle, riding, Whitman.....	1	9.34	2.12	2.50	13.96
Stirrups.....	115	6.69	.....	19.00	25.69
Saddles, wagon.....	152	532.34	27.71	38.00	598.05
Saddles, cart.....	2	6.74	.73	1.25	8.72
Lines, side.....	283	141.62	13.50	22.25	177.37
Surcingle.....	75	61.29	2.19	3.75	67.23
Jockey-sticks.....	115	6.90	.....	2.00	8.90
Hobbles, pairs.....	14	6.19	1.30	1.50	8.99
Whips, wagon.....	18	8.94	2.17	4.00	15.11
Or a total cost, as reported, of.....					19,112.66

MESS TABLES, BENCHES, AND BROOMS.

There were manufactured during the fiscal year, under authority of the Secretary of War, at Fort Leavenworth Military Prison, viz :

Articles.	Number.	Cost.
Mess-tables, specification size.....	187	\$1,229.04
Mess-tables, specification size, 10 feet.....	93	525.76
Mess-tables, specification size, 12 feet.....	53	362.51
Mess-tables, specification size, 14 feet.....	7	47.08
Mess-benches, specification size.....	296	692.35
Mess-benches, specification size, 10 feet.....	182	454.78
Mess-benches, specification size, 12 feet.....	90	253.15
Mess-benches, specification size, 14 feet.....	14	42.22
Mess-tables, special, 3 feet 6 inches by 11 feet.....	2	13.63
Stable brooms.....	4,248	1,583.68
Stable-broom handles.....	1,003	77.28
Or a total cost, as reported, of.....		5,281.48

COMPANY FIELD-DESKS.

There were manufactured during the fiscal year, under authority of the Secretary of War, at Fort Leavenworth Military Prison, viz :

Articles.	Number.	Cost.
Company field-desks	49	\$347.32
Regimental field-desk	1	10.68

STOVES AND RANGES AND STOVE FURNITURE.

The following-described articles of stove furniture were, under authority of the Secretary of War manufactured at the Fort Leavenworth Military Prison, viz :

Articles.	No.	Cost.			
		Material.	Civilian labor.	Prison labor.	Total.
Wash-boilers, army range, 1 and 2, pit and flat bottoms	1,258	\$1,206.89	\$144.36	\$158.75	\$1,510.00
Coffee-boilers, army range, 1 and 2, pit and flat bottoms	540	207.31	63.47	67.50	338.28
Tea-kettles, army range, 1 and 2, pit and flat bottoms	501	185.93	35.09	38.75	259.77
Steamers, round, army range, 1 and 2	209	33.25	12.33	13.00	58.58
Steamers, square, 33 by 12 inches	12	7.78	1.20	1.50	10.48
Steamers, round, No. 7	10	1.36	.76	.75	2.87
Steamers, round, 18 inches diameter	12	5.68	1.52	1.50	8.70
Bake-pans, large, army range, 1 and 2	291	94.68	15.43	16.50	126.61
Bake-pans, small, army range, 1 and 2	563	98.95	20.54	32.25	161.74
Boilers, square, 8 gallons, F. and S.	12	14.94	3.03	3.40	21.01
Boilers, square, 8 gallons, F. and S.	12	15.22	3.53	3.50	22.25
Boilers, square, 12½ inches square, 8 gallons	180	132.05	33.93	37.50	203.48
Boilers, square, 12 gallons	36	31.20	6.15	7.50	44.85
Boilers, square, 12½ by 12½ by 17 inches, F., no S., 12 gallons	30	41.38	6.44	8.00	55.82
Boilers, square, 12½ by 12½ by 17 inches F. and S., 12 gallons	54	73.72	14.09	15.75	103.56
Boilers, square, 12 by 23 by 13 inches, 15 gallons	133	168.03	29.69	33.25	230.97
Boilers, square, 30 by 15 by 18 inches	6	13.23	1.51	1.75	16.49
Boilers, square, 24 by 12½ by 12½ inches, F. and S.	2	3.48	.65	.75	4.88
Boilers, square, 24 by 12½ by 12½ inches, double cover	4	5.54	1.08	1.25	7.87
Boilers, square, 12 by 23 by 13 inches, 15 gallons, F. and S.	36	85.30	11.93	12.00	89.23
Boilers, square, 20 gallons	65	96.25	20.36	21.75	138.36
Boilers, square, F. and S., 20 gallons	14	28.88	4.25	5.25	38.38
Boilers, square, copper, 15 gallons	42	141.31	17.41	21.00	179.72
Boilers, square, 12 gallons	24	21.04	5.17	5.00	31.21
Boilers, square, 15 gallons	72	91.10	18.00	18.15	127.25
Boilers, square, copper, 15 gallons, steamer attached	22	89.28	12.69	14.75	116.70
Boilers, square, double covers, 25 by 12½ by 12 inches, F., no S.	10	19.48	2.00	2.50	23.98
Boilers, square, copper, 18 by 18 by 15 inches, F., no S.	5	24.62	1.60	2.00	27.62
Boilers, square, 16 by 16 by 16 inches	4	5.76	.78	.75	7.29
Boilers, square, 24 by 14 by 12 inches	10	12.78	1.60	2.00	16.38
Boilers, square, 24 by 24 by 18 inches	6	16.01	1.20	1.50	18.71
Boilers, square, 30 by 18 by 14 inches	10	24.42	2.40	3.00	29.82
Boilers, square, 18½ by 18½ by 13½ inches, iron band around bottom	6	7.54	3.18	3.00	13.72
Boilers, square, copper, 20 by 15 by 14 inches	10	27.77	2.00	2.50	32.27
Boilers, square, copper, 22 by 17 by 13 inches	1	5.55	.69	.75	6.99
Boilers, square, copper, 12 by 23 by 13 inches, 15 gallons, F. and S.	21	80.19	10.46	11.50	102.15
Boilers, square, copper, 8 gallons	37	85.15	11.00	12.75	108.90
Boilers, square, copper, 8 gallons, F. and S.	2	5.74	.60	.75	7.09
Boilers, square, copper, 14 by 14 by 12 inches, F., no S.	10	27.84	2.00	2.50	32.34
Boilers, round, 10 gallons	36	32.87	7.31	7.50	47.68
Boilers, round, 5 gallons	6	2.75	.60	.75	4.10
Boilers, round, 5 gallons, F. and S.	19	22.40	1.80	2.25	26.45
Boilers, round, 5 gallons, F., no S.	4	4.57	.76	.75	6.08

Articles.	No.	Cost.			
		Material.	Civilian labor.	Prison labor.	Total.
Boilers, round, 10 gallons, F. and S.	109	\$157.53	\$25.66	\$27.25	\$210.44
Boilers, round, 10 gallons, F. no S.	16	23.14	4.04	4.00	31.18
Boilers, round, 10 gallons, F. and S., to pattern.	2	2.97	.86	1.00	4.83
Boilers, round, 12½ inches diameter, 19½ inches deep	10	7.98	2.00	2.50	12.48
Boilers, round, 12½ inches diameter, 19½ inches deep F. no S.	5	6.55	.76	.75	8.06
Boilers, round, 12 gallons, F. and S.	4	6.27	1.26	1.25	8.78
Boilers, round, 13 inches diameter, 19 inches deep	10	8.09	1.52	1.50	11.11
Boilers, round, 15 gallons, F. and S.	120	192.14	34.49	35.00	261.63
Boilers, round, 15 gallons, F. no S.	12	19.20	3.53	3.50	26.23
Boilers, round, 20 gallons, F. and S.	12	21.95	3.44	4.00	29.39
Boilers, round, 15 gallons.	24	25.91	4.80	6.00	36.71
Boilers, round, 20 gallons.	12	15.66	2.40	3.00	21.06
Boilers, round, copper, 15 gallons, F. and S.	12	40.44	4.77	4.50	49.71
Boilers, round, copper, 20 gallons, F. and S.	5	19.17	2.65	2.50	24.33
Boilers, wash, flat-bottom, No. 6	6	4.49	.79	.75	6.03
Boilers, wash, flat-bottom, No. 7	10	16.89	2.04	2.25	21.18
Boilers, wash, pit-bottom, No. 7	10	8.58	1.26	1.25	11.09
Boilers, wash, flat-bottom, 24 by 12 by 14 inches, round corners	12	15.19	2.75	2.50	20.43
Boilers, wash, 12 by 24 by 12 inches, round corners.	10	12.72	2.02	2.00	16.74
Boilers, wash, copper, pit-bottom	23	53.80	5.40	5.25	64.45
Boilers, coffee, pit-bottom, No. 6	6	1.91	.51	.50	2.92
Boilers, coffee, pit-bottom, No. 7	21	6.99	2.35	2.50	11.87
Boiler and steamer attached, 5 gallons	1	.88	.51	.50	1.89
Boiler and steamer attached, 10 gallons	1	1.38	.51	.50	2.39
Coffee-pots, 2-gallon, bailed	65	22.51	7.18	7.50	37.19
Coffee-pots, 2-quart, bailed	8	.96	.78	.75	2.51
Coffee-pots, 3-quart, bailed	8	1.16	.78	.75	2.69
Coffee-pots, 3-quart, handled	60	6.55	4.56	6.00	16.11
Coffee-pots, 2-quart, handled	57	5.42	3.80	4.75	13.97
Coffee-pots, 4-quart, handled	60	9.58	5.26	6.25	21.09
Coffee-pots, 4-quart, bailed	19	2.91	2.04	2.00	6.95
Coffee-pots, 4-quart, bailed, copper bottom	9	1.69	.76	.75	3.20
Coffee-pots, 5-quart, bailed	27	4.72	2.67	2.88	10.27
Tea-kettles, C. S., flat-bottom	12	5.05	1.06	1.00	7.11
Tea-kettles, No. 6, pit-bottom	2	.76	.12	.12	1.00
Tea-kettles, No. 7, flat-bottom	12	4.26	1.39	1.38	7.03
Tea-kettles, C. S., pit-bottom	360	146.12	24.87	27.25	198.24
Tea-kettles, No. 6	3	.98	.26	.25	1.49
Tea-kettles, No. 7	8	2.80	.66	.75	4.31
Tea-pots, 4-quart	6	.81	1.04	1.00	2.85
Tea-pots, 2-quart	7	.82	1.71	1.75	4.28
Bake-pans, 24 by 18 inches	10	2.78	.40	.50	3.68
Bake-pans, 24 by 20 by 4 inches	24	9.57	1.60	2.00	13.17
Bake-pans, 26 by 24 by 3 inches	6	2.37	.60	.75	3.72
Bake-pans, 22 by 16 inches	24	7.85	1.20	1.50	10.55
Bake-pans, 8 by 14 inches	18	1.52	1.01	1.00	3.53
Bake-pans, 8 by 12 inches	12	.85	.52	.50	1.87
Bake-pans, 8 by 12 by 2 inches	24	1.84	1.01	1.00	3.85
Bake-pans, 7½ by 7½ inches	24	.78	.86	1.00	2.64
Bake-pans, 8 by 15 by 2½ inches	12	.95	.51	.50	1.96
Bake-pans, 9 by 10 inches	10	.53	.43	.50	1.46
Bake-pans, 12 by 17 inches	24	4.01	1.52	1.50	7.03
Bake-pans, 21 by 11 by 4½ inches	4	.86	.20	.25	1.31
Bake-pans, 12 by 18 inches	36	6.06	2.05	2.00	10.11
Bake-pans, large, A. R.	116	30.88	5.80	7.25	43.93
Bake-pans, small, A. R.	318	39.75	13.20	16.50	69.45
Bake-pans, 21 by 21 by 4 inches	2	.80	.20	.25	1.25
Bake-pans, 16 by 24 inches	16	6.53	1.00	1.00	8.53
Bake-pans, 15 by 15 by 2½ inches	6	.84	.40	.50	1.74
Bake-pans, 14 by 18 inches	24	6.09	1.20	1.50	8.79
Bake-pans, 18 by 24 by 4 inches	4	2.15	.25	.25	2.65
Bake-pans, 20 by 15½ by 3½ inches	20	4.59	1.20	1.50	7.29
Bake-pans, Russia, 20 by 24 inches	6	7.83	.53	.50	8.86
Dish-pans, 26 inches diameter	14	11.32	1.49	1.75	14.56
Saucepans, No. 8	12	4.14	1.09	1.25	6.48
Boiler covers	140	6.13	1.42	1.75	9.30
Joints stovepipe, common, 4½ inches	21	1.53	.26	.25	2.04
Joints stovepipe, common, 4 inches	68	4.83	.63	.75	6.21
Joints stovepipe, common, 4½ inches	1,080	79.48	9.93	11.25	100.66
Joints stovepipe, common, 5 inches	3,930	315.23	38.75	41.00	394.98
Joints stovepipe, common, 5½ inches	792	76.26	6.00	6.50	88.76
Joints stovepipe, common, 6 inches	10158	1,018.71	98.55	106.75	1,223.01
Joints stovepipe, common, 7 inches	4,144	658.27	40.22	43.75	742.24
Joints stovepipe, common, 8 inches	947	153.39	9.76	10.25	173.40
Joints stovepipe, common, 9 inches	95	35.21	1.66	2.00	38.87
Joints stovepipe, common, 10 inches	25	9.94	.40	.50	10.84
Joints stovepipe, common, 10 inches	23	7.80	.95	1.00	9.75
Joints stovepipe, Russia, 4½ inches	60	12.27	.58	.50	14.30
Joints stovepipe, Russia, 5½ inches	20	5.56	.22	.25	6.03

REPORT OF THE SECRETARY OF WAR.

Articles.	No.	Cost.			
		Material.	Civilian labor.	Prison labor.	Total.
a, 5 inches.....	170	\$41.45	\$1.81	\$1.75	\$45.01
a, 6 inches.....	1,701	526.02	15.68	17.75	559.45
a, 7 inches.....	75	28.06	.02	.75	29.43
a, 8 inches.....	12	5.26	.26	.25	5.77
a, 9 inches.....	3	1.17	.22	.13	1.51
nized iron, 5 inches.....	100	12.53	.52	.50	13.55
nized iron, 7 inches.....	100	22.66	.78	.75	24.19
hes.....	12	.56	.52	.50	1.58
hes.....	385	15.73	10.58	12.00	38.31
hes.....	569	31.15	12.57	14.00	57.72
hes.....	36	.83	.97	1.12	2.92
hes.....	297	17.27	8.75	9.25	35.27
hes.....	2,639	169.42	77.59	82.80	329.81
hes.....	1,204	164.60	36.68	39.00	240.28
hes.....	315	45.22	12.43	13.00	70.65
hes.....	34	6.12	1.74	2.00	9.86
hes.....	6	1.32	.22	.25	1.79
hes.....	40	4.92	1.32	1.25	7.49
hes.....	89	11.66	2.60	2.50	16.76
hes.....	8	1.08	.22	.25	1.55
hes.....	433	95.61	9.35	9.37	114.33
hes.....	6	1.18	.22	.25	1.65
hes.....	6	1.47	.27	.25	1.99
nches.....	50	4.27	1.68	1.50	7.45
nches.....	50	7.85	2.24	2.00	12.19
hes.....	52	1.08	1.01	1.00	3.09
hes.....	93	3.72	1.74	1.75	7.21
hes.....	43	1.94	.06	1.00	3.00
orted.....	48	1.70	.40	.50	2.60
hes.....	85	2.71	1.40	1.75	5.86
hes.....	12	.30	.26	.25	.81
ted.....	2,893	88.13	25.33	30.50	143.96
hes.....	89	10.33	5.35	5.75	21.43
hes.....	18	5.86	1.02	1.25	8.13
hes.....	2	.54	.20	.25	.99
n, 55 gallons.....	1	3.10	.89	1.00	4.99
iron, 18 inches.....	1	.24	.20	.25	.69
reported, of.....					10,549.96

ages of standard manufacture, and extra parts there-
 ased at general depots to extent of \$61,069.14, as

r post.	Cooking stoves.		Ranges.		Heating stoves.		Cost of repairs of stoves and ranges.
	No.	Cost.	No.	Cost.	No.	Cost.	
.....	6	\$306.00	33	\$2,091.28	27	\$404.94	\$3,580.27
ouri.....	7	192.60	29	1,836.60	248	3,329.60	2,500.39
mbia.....	14	440.00	11	573.00	65	1,553.30	2,914.06
.....	10	518.60	1	145.00	105	1,202.00	1,070.90
.....			9	1,968.00	38	520.43	1,063.51
.....					2	64.45	
ia.....							49.50
to.....					5	275.00	102.31
.....	56	2,825.00	17	2,217.00	232	2,621.85	3,199.73
.....			70	4,347.65	50	1,712.50	8,749.46
.....	3	60.00	6	254.00	1	12.50	580.65
.....	1	36.75			55	754.40	1,936.51
lo.....					3	38.50	292.07
ouri.....	2	69.00					244.50
urtermaster.....	5	155.14	1	105.00	72	867.74	208.40
rk Harbor.....			3	168.00			66.95
.....			2	200.00			107.65
.....							50.70
.....			14	1,873.00	31	553.05	
.....					1	12.00	3.70
.....							40.00
.....	104	4,603.09	190	15,778.53	935	13,922.26	26,765.26

During the fiscal year 1887-'88 there were purchased :

Style.	No.	Total cost.	Style.	No.	Total cost.
Dump carts	87	\$3,340.00	Light wagon	1	70.00
Ambulance wagons.....	50	9,810.00	Farm wagon	1	45.00
Escort wagons	60	5,780.00	Freight wagon	1	125.00
Dougherty spring wagons.....	36	6,456.50	Covered wagon	1	225.00
Army wagons	30	3,300.00	Express wagon	1	270.00
Spring wagons	10	1,932.00	Slop-cart	1	67.00
Hand-carts	21	342.00	Coal-cart	1	100.00
Buckboards	10	882.50	Sleigh (bob).....	1	35.00
Hose-carts	8	368.00	Thoroughbrace wagon	1	285.00
Hose-trucks	2	625.00			
Water-wagons	2	488.00	Total.....		35,296.00
Hook and ladder trucks	2	750.00			

VETERINARY SUPPLIES.

During the fiscal year, under Army Regulations 322, veterinary supplies were purchased from the Medical Department to the value of \$4,506.64.

ILLUMINATING SUPPLIES.

During the fiscal year, 481 lamps (pendent and bracket) ; 24 street lanterns; 230 street lamps; 10 hand lamps; 4 square lamps; 837 lanterns (oil and candle) ; and the necessary chimneys, wicks, and various parts required for expenditures and repairs, were purchased at general depots at a cost of \$8,266.16.

Two thousand three hundred and fifty-nine gallons of gasoline were purchased at a cost of \$532.29.

Three hundred and thirty thousand two hundred gallons of mineral oil were purchased at a cost of \$47,481.58.

Expenditure for gas, \$6,765.34.

The aggregate expenditure on account of said illuminating supplies was \$63,036.29.

The money received from sales of illuminating supplies to officers reverts to the appropriation for regular supplies.

ESTIMATES AND REQUISITIONS.

Estimates for annual supplies and miscellaneous requisitions have been received and acted upon during the fiscal year, as follows :

From Division of the Atlantic	610
From Division of the Missouri.....	619
From Division of the Pacific	204
From general depots and independent posts, etc.....	357
Total.....	1,790

CONTRACTS.

During the year ending June 30, 1888, 1,747 contracts were received, examined, and filed in this office. Nine hundred and forty-seven were for 136,901 cords of wood, 187,084,502 pounds of coal, 46,920 bushels of charcoal, 18,934,300 pounds of corn, 33,917,230 pounds of oats, 8,241,000 pounds of barley, 4,768,100 pounds of bran, 94,385,060 pounds of hay, 8,257,280 pounds of straw, 50,000 pounds of shorts, and 50,000 pounds of middlings; 11 for indefinite quantities of fuel, forage, and straw; 2

for work on national cemeteries; 3 for head-stones; 107 for clothing, camp, and garrison equipage; 13 for horses and mules; 101 for transportation; 1 for office furniture; 57 for buildings; 3 for stationery; 1 for lamp wicks, etc.; 1 for lamp chimneys; 30 for water and water supply; 6 for wagons and wagon parts; 116 for services; 30 for building materials; 5 for mineral oil; 34 for shoeing public animals; 4 for stoves and stove parts; 5 for heating apparatus; 4 for packing boxes; 132 for leases; 14 for telephone service; 13 for lumber for miscellaneous purposes; 9 for printing; 8 for gas and gas fittings; 1 for book binding; 1 for culvert and inclosing-wall at post cemetery; 1 for inclosing-wall at post cemetery; 1 for culvert; 1 for steel boiler for steam-launch; 1 for rubber hose; 17 for plumbing; 3 for monuments in post cemeteries; 1 for paulins and wagon covers; 1 for rain-water leaders; 1 for tinner's tools; 17 for harness and harness materials; 7 for paints, oil, etc.; 1 for screw propeller for steamer; 2 for dump carts; 1 for cisterns; 2 for sheet-iron; 6 for hardware; 7 for roadways (asphalt, concrete, cobble-stone, and macadam); 1 for Belgian block pavement; 1 for iron gates; 3 for iron fences; 3 for board fences; 2 for digging or boring wells; 1 for bridges; 1 for stone curbing; 1 for steam-boat repairs; 1 for machine parts; 1 for hydraulic passenger elevator; 1 for gravel; 1 for galvanized iron screens; and 1 for rattan.

Statement of pack-trains maintained and expense of same.

Post.	No. of horses.	No. of mules.	Cost of mules (approximate).	Cost of equipment—approximate.	Total cost of pack-train (approximate).	Yearly cost of maintaining same (approximate).
Fort Assiniboine, Mont		12	Not stated.	Not stated.	Not stated.	\$1,199.53
Fort Custer, Mont		10	do	do	do	1,122.11
Cheyenne Depot, Wyo		98	\$12,710.00	\$6,190.25	\$18,900.85	3,851.35
Fort Lewis, Colo		20	1,500.00	780.00	2,280.00	2,515.00
Headquarters Department Arizona		---	Not stated.	Not stated.	Not stated.	Not stated.
Fort Apache, Ariz		26	do	do	do	Do.
Fort Bayard, N. Mex		39	do	do	do	Do.
Fort Bowie, Ariz		26	do	do	do	Do.
Fort Grant, Ariz		39	do	do	do	Do.
Fort Huachuca, Ariz		65	do	do	do	Do.
Fort Lowell, Ariz		39	do	do	do	Do.
Fort McDowell, Ariz		13	do	do	do	Do.
San Carlos, Ariz		26	do	do	do	Do.
Fort Stanton, N. Mex		26	do	do	do	Do.
Fort Thomas, Ariz		13	do	do	do	Do.
Fort Union, N. Mex		13	do	do	do	Do.
Fort Verde, Ariz		13	do	do	do	Do.
Fort Wingate, N. Mex		65	do	do	do	Do.
Fort Gaston, Cal	3	20	do	do	do	2,731.66
Boisé Barracks, Idaho		10	do	do	do	890.00
Fort Sherman, Idaho		13	do	do	do	1,340.00
Fort Spokane, Wash		5	do	do	do	623.00
Walla Walla, Wash		25	do	do	do	2,284.00
Vancouver Depot, Wash		14	do	do	do	971.60

Statement of pack-trains maintained and expense of same—Continued.

Post.	Employés.				Total approximate yearly cost of maintaining pack trains.
	Super-intendent.	Packers.	Packmasters and cargadores.	Total yearly cost of employés.	
Fort Assinniboine, Mont.....	Not stated.	\$720.00	Not stated.	\$720.00	\$1,919.53
Fort Custer, Mont.....	do.....	900.00	do.....	900.00	2,022.11
Cheyenne Depot, Wyo.....	do.....	6,380.00	3,840.00	10,220.00	14,071.35
Fort Lewis, Colo.....	do.....	600.00	480.00	1,080.00	3,595.00
Headquarters Department Arizona.....	\$1,600.00	Not stated.	Not stated.	1,600.00	Not stated.
Fort Apache, Ariz.....	Not stated.	2,400.00	do.....	2,400.00	Do.
Fort Bayard, N. Mex.....	do.....	3,600.00	do.....	3,600.00	Do.
Fort Bowie, Ariz.....	do.....	2,400.00	do.....	2,400.00	Do.
Fort Grant, Ariz.....	do.....	3,600.00	do.....	3,600.00	Do.
Fort Huachuca, Ariz.....	do.....	6,000.00	do.....	6,000.00	Do.
Fort Lowell, Ariz.....	do.....	3,600.00	do.....	3,600.00	Do.
Fort McDowell, Ariz.....	do.....	1,200.00	do.....	1,200.00	Do.
San Carlos, Ariz.....	do.....	2,400.00	do.....	2,400.00	Do.
Fort Stanton, N. Mex.....	do.....	2,400.00	do.....	2,400.00	Do.
Fort Thomas, Ariz.....	do.....	1,200.00	do.....	1,200.00	Do.
Fort Union, N. Mex.....	do.....	1,200.00	do.....	1,200.00	Do.
Fort Verde, Ariz.....	do.....	1,200.00	do.....	1,200.00	Do.
Fort Wingate, N. Mex.....	do.....	6,000.00	do.....	6,000.00	Do.
Fort Gaston, Cal.....	do.....	1,720.00	do.....	1,720.00	4,451.66
Boisé Barracks, Idaho.....	do.....	Not stated.	do.....	Not stated.	890.00
Fort Sherman, Idaho.....	do.....	1,720.00	do.....	1,720.00	8,060.00
Fort Spokane, Wash.....	do.....	1,720.00	do.....	1,720.00	2,343.60
Walla Walla, Wash.....	do.....	1,720.00	do.....	1,720.00	4,004.00
Vancouver Depot, Wash.....	do.....	1,480.00	do.....	1,480.00	2,451.60

Average contract price of fuel, forage, and straw in the several military departments during fiscal year ending June 30, 1888.

Articles.	Department.						
	East.	Platte.	Dakota.	Missouri.	Texas.	California.	Columbia.
Hard wood, per cord.....	\$4.82	\$6.38	\$4.97	\$6.23	\$3.89	\$13.51	\$6.18
Soft wood, per cord.....	4.74	5.37	5.04	4.85	4.80	4.88	4.06
Hard coal, per ton, 2,240 pounds.....	5.16	9.93	12.98	10.22	15.31	15.31	5.00
Soft coal, per ton, 2,240 pounds.....	3.57	7.22	4.48	4.63	10.80	12.36	5.75
Corn, per 100 pounds.....	1.10	1.37	1.39	.95	1.25	1.72	1.41
Oats, per 100 pounds.....	1.18	1.77	1.59	1.12	1.74	2.00	2.33
Barley, per 100 pounds.....	do.....	do.....	do.....	do.....	do.....	1.66	1.78
Bran, per 100 pounds.....	.98	1.58	1.46	.94	1.47	1.05	1.13
Hay, per 100 pounds.....	.86	.65	.60	.44	.70	.94	.77
Straw, per 100 pounds.....	.76	.63	.33	.47	.61	.87	.54

received at this office during the year; an abstract of which, showing the names of contractors, routes of supply, date of each contract, and date of its expiration, and rates payable, accompanies this report, marked E.

STAGE TRANSPORTATION.

By stage 2,619 persons and 3,707 pounds of extra baggage were transported under direction of the Quartermaster's Department during the year, at a cost of \$22,144.16; of this sum \$3,352.25 remained due on outstanding accounts June 30, 1888.

TELEGRAPHING ON ARMY BUSINESS.

During the year the Quartermaster's Department has continued to prepare and settle the accounts of telegraph companies for messages sent on official military business. Five hundred and eight unpaid telegraph accounts, accruing during the fiscal years 1887 and 1888, amounting to \$4,290.32, also 47 accounts for re-imbursement to Army officers of amounts paid by them for telegrams on public business, amounting to \$73.23, were received at this office during the year, examined, and forwarded to the accounting officers of the Treasury for settlement. Of these accounts, 394, amounting to \$3,091.15, have been settled; leaving 114, amounting to \$1,199.17, remaining in the Treasury unsettled June 30, 1888.

The provisions of law under which these accounts have been adjusted remained the same as set forth in the last annual report of the Quartermaster-General.

A new basis of calculating distances was adopted by the Postmaster-General, fixing the rate of charge for telegraphic communications on and after July 1, 1887; the distance being in all cases regulated by the capital of the State or Territory from which the message is sent to the capital of the State or Territory in which the place of destination is located. For the convenience of officers of the Army a table of distances by capitals, together with the schedule of rates for Government telegrams, was published August 4, 1887, in General Orders No. 54, Adjutant-General's Office.

The cost of telegraphing for the Army during the fiscal year is reported at \$7,004.10.

INDEBTED RAILROADS.

The last annual report of the Quartermaster-General showed that three such roads remained with unadjusted accounts June 30, 1887, representing an aggregate of \$1,187,628 27.

The matters involved in the relations of these three roads to the United States remain unadjusted, nothing having been paid on their accounts during the fiscal year ending June 30, 1888.

The nature of the indebtedness of these roads was fully explained in the report of the Quartermaster-General for the year 1885, when legislative or legal action was recommended.

TRANSPORTATION FOR OTHER DEPARTMENTS.

The Quartermaster's Department has continued during the fiscal year to receive public property from other departments of the Government, and provide transportation therefor, as required by the act of Congress of July 5, 1884 (23 Stat., 111).

This service has been rendered for the various bureaus of the Treasury, Navy, and Interior Departments, and the accounts therefor adjusted through the bureaus of the Department to which they pertained.

APPROPRIATION FOR ARMY TRANSPORTATION, AND ITS DISBURSEMENT.

By act of June 30, 1887, the sum of \$2,800,000 was appropriated for Army transportation for the fiscal year ending June 30, 1888.

A compilation showing its disbursement by the officers of the Department, and by Treasury settlements, will appear in the report of the accounts branch of this office.

TRANSPORTATION ACCOUNTS AND CLAIMS.

Three thousand seven hundred and fifty transportation and telegraph accounts and claims, amounting to \$658,261.74, were adjusted through the transportation branch during the fiscal year ending June 30, 1888. Of these 3,733, amounting to \$651,877.19, were referred to the proper bureau or office for settlement; 5, amounting to \$1,078, were unfavorably reported upon and rejection recommended; 12, amounting to \$5,306.55, were awaiting action or under adjustment at close of the fiscal year.

REGULAR SUPPLIES BRANCH.

This branch has charge of all matters relating to the procurement and distribution of supplies furnished to the Army by the Quartermaster's Department, excepting clothing, camp and garrison equipage, and such other supplies as are assigned to the barracks and quarters branch, including means of transportation, horses for the cavalry and artillery, and other troops authorized to be mounted; to the procurement of the prescribed blank books and forms authorized by the regulations, and of conducting the necessary correspondence and keeping the necessary books and record of the transactions connected with the work of this branch.

This branch has also charge of matters relating to all contracts to which the Quartermaster's Department is a party.

REGULAR AND MISCELLANEOUS SUPPLIES.

ANIMALS.

The following statement shows the number of cavalry and artillery horses purchased during the fiscal year, their aggregate cost and average cost:

Cavalry and artillery horses purchased.

For what military division.	Number.	Total cost.	Average cost.
Division of the Atlantic	28	\$3,832.00	\$136.85
Division of the Missouri	669	89,553.35	133.86
Division of the Pacific	227	33,753.00	148.69
Total	924	127,138.35	137.59

The cavalry and artillery horses for the various divisions were purchased under authority of the Secretary of War, and were inspected by his direction, as required by him.

Statement showing method of heating, the kind of fuel used, and the cost of maintenance of apparatus—Continued.

Posts.	Method of heating.		Kinds of	Steam heating apparatus.	
	Officers' quarters.	Barracks, etc.		Cost of plant.	Yearly expense of maintenance.
Camp Pilot Butte, Wyo.....	Stoves.....	Stoves.....	Soft coal.....	.....	.....
Cheyenne Depot.....	do.....	do.....	do.....	.....	.....
Cheyenne Ordnance depot.....	do.....	do.....	do.....	.....	.....
Omaha Q. M. depot, Nebr.....	do.....	do.....	Wood, hard and soft coal.....	.....	.....
Ogden Q. M. depot, Utah.....	do.....	do.....	Soft coal.....	.....	.....
Fort Crawford, Colo.....	do.....	do.....	Wood.....	.....	.....
Post near Denver, Colo.....	do.....	do.....	Soft coal.....	.....	.....
Fort Elliott, Tex.....	do.....	do.....	Soft coal and wood.....	.....	.....
Fort Gibson, Ind. T.....	do.....	do.....	Wood.....	.....	.....
Fort Hays, Kans.....	do.....	do.....	Soft coal and wood.....	.....	.....
Fort Leavenworth, depot, Kans.....	Stoves and furnaces.....	do.....	Soft coal and wood.....	.....	.....
Fort Leavenworth, headquarters building.....	Steam heating.....	do.....	Hard and soft coal and wood.....	.....	.....
Fort Leavenworth, Kans.....	Stoves and furnaces.....	do.....	Soft coal.....	\$7,130.00	\$2,048.40
Fort Lewis, Colo.....	Stoves.....	Steam heating and stoves.....	Wood, hard and soft coal.....	29,230.77	4,405.00
Fort Lyon, Colo.....	do.....	Stoves.....	Wood and soft coal.....	.....	.....
Fort Reno, Ind. T.....	do.....	do.....	do.....	.....	.....
Fort Riley, Kans.....	Stoves and grates.....	do.....	Hard and soft wood and coal.....	.....	.....
Fort Sheridan, Ill.....	Stoves.....	do.....	Wood and hard coal.....	.....	.....
Fort Sill, Ind. T.....	do.....	do.....	Wood.....	.....	.....
Fort Supply, Ind. T.....	do.....	do.....	do.....	.....	.....
Fort Bliss, Tex.....	Stoves and fire places.....	do.....	Soft coal and wood.....	.....	.....
Fort Brown, Tex.....	do.....	Stoves and fire places.....	do.....	.....	.....
Fort Clark, Tex.....	do.....	Stoves.....	Wood.....	.....	.....
Fort Concho, Tex.....	do.....	Stoves and fire places.....	do.....	.....	.....
Fort Davis, Tex.....	do.....	Stoves.....	do.....	.....	.....
Fort Hancock, Tex.....	do.....	Stoves and fire places.....	do.....	.....	.....
Fort McIntosh, Tex.....	do.....	Stoves.....	do.....	.....	.....
Fort Ringgold, Tex.....	do.....	do.....	do.....	.....	.....
Camp Del Rio, Tex.....	do.....	do.....	do.....	.....	.....
Camp Eagle Pass, Tex.....	do.....	do.....	do.....	.....	.....
Camp Pecos, Tex.....	do.....	do.....	do.....	.....	.....
Camp Pecos Colorado, Tex.....	do.....	do.....	do.....	.....	.....
San Antonio, post.....	do.....	do.....	do.....	.....	.....
San Antonio, depot.....	do.....	do.....	Soft coal and wood.....	.....	.....
Fort Apache, Ariz.....	Stoves.....	do.....	Soft wood.....	.....	.....
Fort Bayard, N. Mex.....	do.....	do.....	Oak wood.....	.....	.....
Fort Bowie, Ariz.....	Stoves and fire places.....	do.....	Soft wood.....	.....	.....

Fort Grant, Ariz.	do	do	do	do	do
Fort Huachuca, Ariz.	Stoves	do	do	do	do
Fort Lowell, Ariz.	Stoves and fire-places	do	do	do	do
Fort Marcy and Santa Fé, N. Mex.	do	do	do	do	do
Fort McDowell, Ariz.	do	do	do	do	do
Fort Mojave, Ariz.	do	do	do	do	do
San Carlos, Ariz.	Stoves	do	do	do	do
San Diego Barracks, Cal.	do	do	do	do	do
Fort Selden, N. Mex.	do	do	do	do	do
Fort Thomas, N. Mex.	do	do	do	do	do
Fort Thomas, Ariz.	Stoves and fire-places	do	do	do	do
Fort Union, N. Mex.	Stoves	do	do	do	do
Fort Verde, Ariz.	do	do	do	do	do
Whipple Barracks, Ariz.	do	do	do	do	do
Fort Wingate, N. Mex.	Stoves and open grates	do	do	do	do
Alcatraz Island, Cal.	Stoves and grates	do	do	do	do
Angel Island, Cal.	do	do	do	do	do
Benicia Barracks, Cal.	Stoves and fire-places	do	do	do	do
Fort Bidwell, Cal.	Stoves	do	do	do	do
Fort Gaston, Cal.	do	do	do	do	do
Fort Mason, Cal.	Furnaces, stoves, grates	do	do	do	do
Fort McDermitt, Nev.	Stoves	do	do	do	do
Presidio of San Francisco, Cal.	Stoves and grates	do	do	do	do
Boise Barracks, Idaho	Stoves and fire-places	do	do	do	do
Fort Klamath, Oregon	do	do	do	do	do
Fort Sherman, Idaho	do	do	do	do	do
Fort Spokane, Wash.	do	do	do	do	do
Fort Townsend, Wash.	do	do	do	do	do
Vancouver Barracks, Wash.	Stoves	do	do	do	do
Vancouver depot, Wash.	Stoves and fire-places	do	do	do	do
Department headquarters, Vancouver, Wash.	Fire-places	do	do	do	do
Fort Walla Walla, Wash.	Stoves and fire-places	do	do	do	do

Statement showing steam power used in Division of the Atlantic and at quartermasters' depots and independent posts, for what purpose used, and cost of plant and maintenance.

Posts.	For what purpose used.	Cost of plant.	Yearly cost of maintenance.		
			Fuel.	Labor.	Repairs.
Fort Adams, R. I.	Water supply	\$1,150.00	\$378.50	\$900.00	.....
Fort Columbus, N. Y.	Sawing wood	No record	112.60	.....	.....
Fort Mackinac, Mich.	Water supply	446.25	66.60	182.50	.....
Fort Monroe, Va.	do	38,200.00	337.86	720.00	.....
Fort Myer, Va.	do	490.00	419.00	720.00	.....
Fort Niagara, N. Y.	do	8,285.30	630.00	720.00	\$50.00
Fort Preble, Me.	Water supply and sawing wood.	890.75	289.00	150.00	.....
Fort Schuyler, N. Y.	Not stated	360.00	63.96	Not stated	.....
Fort Wadsworth, N. Y.	Water supply	475.00	120.39	720.00	.....
Fort Warren, Mass.	do	1,600.00	18.19	136.50	31.78
Fort Wayne, Mich.	Not stated	1,046.10	166.47	720.00	91.84
Fort Ringgold, Tex.	Water supply and sawing wood.	Unknown	650.00	650.00	.....
Jackson Barracks, La.	Water supply	3,750.00	415.00	900.00	25.00
Madison Barracks, N. Y.	Water supply and sewerage.	17,000.00	800.00	720.00	380.00
Philadelphia depot.	Baling supplies and elevators.	14,780.57	471.25	1,280.00	.....
Jeffersonville depot.	Water supply and heating.	20,200.00	3,581.05	3,540.00	.....
David's Island, New York Harbor.	Water supply	16,367.00	189.82	1,143.00	109.16
Jefferson Barracks, Mo.	Sawing wood	Unknown	363.00	408.50	25.76
Do	Water supply	do	1,062.90	540.00	74.18

Statement showing steam power used in the Division of the Missouri and at quartermasters' depots and independent posts, for what purpose used, and cost of plant and maintenance.

Post.	For what purpose used.	Yearly cost of maintenance.	Cost of plant.
Fort Abraham Lincoln, Dak.	Pumping water	\$1,200.00	\$1,500.00
	Sawing wood	688.00	
Fort Assiniboine, Mont.	Pumping water	3,127.24	1,140.00
	Sawing wood	1,867.83	
Fort Buford, Dak.	Pumping water	1,745.00	1,830.00
	Sawing lumber	721.00	
Fort Custer, Mont.	Sawing wood	701.00	2,327.00
	Pumping water	110.00	
Fort Keogh, Mont.	Sawing wood	1,896.00	980.00
	Pumping water	855.45	
Fort Maginnis.	Sawing wood	415.00	3,298.03
	Pumping water	56.12	
Fort Meade, Dak.	Sawing wood	561.15	700.00
	Sawing lumber	727.07	
Fort Missoula, Mont.	Water supply	2,878.09	1,200.00
	Sawing wood	159.78	
Fort Pembina, Dak.	Sawing lumber	434.03	527.00
	Pumping water	1,706.80	
Fort Randall, Dak.	Sawing wood	6.80	2,500.00
	Sawing lumber	90.00	
Fort Shaw, Mont.	Pumping water	1,337.50	1,725.00
	Pumping water	648.55	
Fort Snelling, Minn.	Sawing wood	310.00	4,000.00
	Pumping water	1,100.00	
Fort Totten, Dak.	Sawing wood	1,195.00	608.00
	Pumping water	295.00	
Fort Yates, Dak.	Sawing wood	3,685.00	1,212.75
	Pumping water	632.00	
Fort D. A. Russell, Wyo.	Sawing wood	576.00	8,000.00
	Pumping water	214.56	
	Sawing wood	2,636.00	150.00
	Pumping water	306.00	
	Sawing wood	1,950.00	
	Pumping water .....	.....

Statement showing steam power used in the Division of the Missouri and at quartermasters' depots and independent posts, etc.—Continued.

Post.	For what purpose used.	Yearly cost of maintenance.	Cost of plant.
Fort Du Chesne, Utah.....	Sawing wood.....		\$240.00
Fort McKinney, Wyo.....	Pumping water.....	\$1,720.00	1,000.00
	Sawing wood.....		1,440.00
Fort Niobrara, Nebr.....	Pumping water.....	1,941.24	1,450.00
	Sawing wood.....		1,557.92
Fort Omaha, Nebr.....	Pumping water.....	1,254.00	2,500.00
	Sawing wood.....		400.00
Fort Robinson, Nebr.....	Pumping water.....	2,767.60	
	Sawing wood.....		1,943.60
Fort Sidney, Nebr.....	Pumping water.....	528.00	700.00
	do.....	1,400.00	9,500.00
Fort Washakie, Wyo.....	Sawing wood.....		1,200.00
	Pumping water.....	1,400.00	2,200.00
	Sawing wood.....		90.00
Cheyenne Depot, Wyo.....	Steam fire-engine.....	200.00	
	Blacksmith shop.....		900.00
Fort Crawford, Colo.....	Pumping water.....	1,603.50	
Fort Leavenworth depot, Kans	Sawing wood.....		250.00
Leavenworth, Kans.....	do.....	75.00	950.00
Fort Lewis, Colo.....	Pumping water.....	1,257.50	1,950.00
	Sawing wood.....	848.00	3,910.00
Fort Lyon, Colo.....	Pumping water.....	2,900.00	4,000.00
	do.....	2,935.00	1,925.50
Fort Reno, Ind. T.....	Sawing wood.....	1,210.00	190.00
Fort Riley, Kans.....	Pumping water.....	877.50	1,250.08
Fort Sill, Ind. T.....	Running saw-mill and pumping water.....	2,300.00	5,500.00
Fort Supply, Ind. T.....	Pumping water.....	1,800.00	750.00
	Sawing wood.....		498.50
Fort Brown, Tex.....	Pumping water.....	1,287.16	1,335.00
	Sawing wood.....		613.58
Fort Bliss, Tex.....	Pumping water.....		299.00
	do.....	1,480.00	8,500.00
Fort Clark, Tex.....	Sawing wood.....		690.00
	Pumping water.....	1,653.40	
Fort Davis, Tex.....	Sawing wood.....		192.60
	Pumping water.....	712.80	506.25
Fort Hancock, Tex.....	Sawing wood.....		712.80
	Pumping water.....	1,010.00	
Fort McIntosh, Tex.....	Sawing wood.....		210.00
	Pumping water.....		2,180.00
San Antonio Depot.....	Sawing wood.....		2,509.03

Statement showing steam power used in the Division of the Pacific and at quartermaster's depots and independent posts, for what purpose used, and cost of plant and maintenance.

Posts.	For what purpose used.	Yearly cost of maintenance.	Cost of plant.
Fort Apache, Ariz	Pumping water	\$1,080.00	-----
	Sawing wood and lumber	438.20	-----
Fort Bayard, N. Mex	Pumping water	2,348.25	-----
	Sawing wood and lumber	288.75	\$1,100.00
Fort Bowie, Ariz	Pumping water, sawing wood, and crushing grain	3,300.00	2,000.00
Fort Huachuca, Ariz	Sawing wood	348.00	1,246.00
Fort Lowell, Ariz	Pumping water and sawing wood	1,653.00	2,585.00
Fort McDowell, Ariz	Pumping water	2,542.00	566.00
	Sawing wood	200.00	-----
Fort Mojave, Ariz	Pumping water	1,064.00	1,226.00
	Sawing wood	531.00	-----
Fort Stanton, N. Mex	Pumping water	2,300.00	800.00
Fort Thomas, Ariz	Sawing wood	100.00	-----
	Pumping water	3,428.00	600.00
Fort Union, N. Mex	do	1,400.00	660.00
	Sawing wood	600.00	-----
Fort Verde, Ariz	Pumping water and sawing wood	2,700.00	-----
	Pumping water	2,500.00	-----
Whipple Barracks, Ariz	Sawing wood	950.00	6,125.00
	Sawing lumber	160.00	-----
Fort Wingate, N. Mex	Pumping water	1,381.24	3,186.00
	Sawing lumber	375.60	-----
Alcatraz Island, Cal	Pumping water	54.00	2,500.00
Angel Island, Cal	do	500.00	900.00
Presidio of San Francisco, Cal	do	2,080.00	5,300.00
Boisé Barracks, Ind. T	Sawing wood	181.48	-----
Fort Klamath, Oreg	do	-----	-----
Fort Sherman, Ind. T	Sawing wood, lumber, etc.	1,338.32	6,300.00
	Pumping water	1,719.83	2,520.00
Fort Spokane, Wyo	Sawing wood, lumber, etc.	3,000.00	3,500.00
Fort Townsend, Wyo	Pumping water	431.40	600.00
Vancouver Barracks, Wyo	Sawing wood	371.40	-----
	do	609.00	-----

RECORDS, FILES, AND CLAIMS BRANCH.

The general records and files of the office since it was organized, June 15, 1818, are in the custody of this branch, which is also charged with the care and safe-keeping of any other records and papers that may from time to time be transferred to it by the other branches of the office.

In this branch a record is kept of all requisitions made on the Public Printer for printing and binding for the office, and for books and blanks issued by the depot quartermaster in this city to officers of the Army, and it receives and distributes the work when completed.

It has charge of and acts upon claims for extra-duty pay to soldiers; for re-imbursement of expenses incurred on account of the Quartermaster's Department; for services of employés; rewards for the apprehension and delivery of deserters; for the recovery of lost or stolen public animals, and the expenses incident to their pursuit; for commutation of quarters and fuel for officers and soldiers during the war and since, and of all other claims and accounts not assigned to any other branch.

It acts upon calls made by the Adjutant-General, Commissioner of Pensions, and other bureaus of the Government, for record of service of civilian employés and enlisted men on extra duty during the war of the rebellion and the Mexican war, and has charge of all miscellaneous matter not assigned to other branches or to the chief clerk of the office, and conducts the necessary correspondence and keeps the records of the transactions connected with the branch.

It also conducts the correspondence in relation to supplying the libraries at military posts with newspapers for the benefit of enlisted men, under Army Regulations 538.

In this branch is also a sub-branch, which has charge of the receipt, distribution, and dispatch of the mails.

MISCELLANEOUS CLAIMS AND ACCOUNTS.

On the 1st of July, 1887, there were on file in the office awaiting final action 10,800 miscellaneous claims, amounting to \$8,326,454.40, and 279 accounts, amounting to \$54,506.21.

There were received during the fiscal year 442 claims and 501 accounts, amounting, as presented, to \$151,147.74; total claims and accounts on hand and received, 12,022, amounting to \$8,532,108.35. During the year final action has been taken upon 994 claims and accounts, amounting to \$261,066.48, and there remained on hand at the end of the fiscal year 11,028 claims and accounts, amounting to \$8,271,041.87.

Of those upon which final action was taken during the year 19 claims were approved for payment of \$548.10; 20 claims, amounting to \$2,752.55, were referred to other Departments; 288 claims, amounting to \$170,423.21, were transmitted to the Third Auditor of the Treasury for action of the accounting officers; and 105 claims, amounting to \$25,082.35, were rejected. Of those approved for payment and referred a reduction of \$12,311.70 was made in their amount as presented to this office.

There were 315 accounts approved for payment of \$7,215.23, which was a reduction of \$57.95 as presented; 204 accounts, amounting to \$42,174.89, were referred to other Departments, and 43 accounts, amounting to \$500.50, were disallowed.

These claims are usually for small sums due for services rendered as teamsters and laborers during the late war. In their preparation for transmission to the accounting officers of the Treasury for action, the monthly rolls of persons hired, on file in this office, require to be examined to verify the statements of the claimants, who frequently are ignorant of the names of the quartermasters who employed them and of the military command in which they served. Much correspondence with claimants and their attorneys for information, and patient research of the records is required to prepare such claims for final action, and as time passes the information obtainable in such cases is less definite and helpful in their examination.

Among the claims reported as on hand are included a large number of vouchers issued by officers of the Quartermaster's Department during the late war for stores purchased and for services rendered. The whereabouts of the owners of these vouchers are unknown, and it is probable that very few, if any, of them will be called up for settlement.

Statement of miscellaneous claims and accounts in the Quartermaster-General's Office for the fiscal year ending June 30, 1892.

	Number.	Amount.
On hand July 1, 1887, which had previously been suspended or had not received decisive action:		
Claims.....	24,300	\$5,128,454.09
Accounts.....	279	54,308.21
Total on hand.....	24,579	\$5,182,762.30
Claims received during the fiscal year.....	662	192,389.72
Accounts received during the fiscal year.....	301	\$7,768.62
Total on hand and received.....	25,542	\$5,372,920.64
Claims approved.....	19	582.10
Claims referred to other departments.....	20	2,732.35
Claims referred to Third Auditor for action of accounting officers.....	262	179,627.23
Reduction on claims approved and referred.....		12,311.70
Claims rejected.....	106	25,002.26
Accounts approved.....	313	7,215.23
Reduction on accounts approved.....		57.95
Accounts referred to other departments.....	264	\$1,174.89
Accounts rejected.....	43	308.30
Total upon which final action has been taken.....	304	\$21,008.63
Remaining on hand July 1, 1892:		
Claims.....	10,410	\$4,217,736.21
Accounts.....	218	53,305.08
Total number and amount.....	11,028	\$4,271,041.29

NEWSPAPERS FOR POST LIBRARIES.

Reading matter (consisting of 94 weekly, 6 semi-weekly, and 47 daily; total, 147 newspapers) has been supplied to the libraries of 132 military posts, independent arsenals, recruiting depots, etc., garrisoned by a force representing 466 companies, at the rate of \$10 worth for each company, costing \$4,645.83, under the provisions of the Army Regulations, paragraph 538.

The following statement shows the newspapers which seem to have been in greatest demand by the enlisted men at the different military posts:

Name of paper.	Posts.	Name of paper.	Posts.
WEEKLIES.		WEEKLIES—continued.	
Argonaut, San Francisco.....	22	New York Ledger.....	18
Army and Navy Register.....	111	Puck.....	82
Cincinnati Graphic.....	30	Scientific American.....	25
Detroit Free Press.....	26		
Frank Leslie's Illustrated Newspaper.....	65	DAILIES.	
Harper's Weekly.....	42	The Graphic, New York.....	17
Harper's Franklin Square Library.....	45	Kansas City Times.....	29
Judge.....	33	New York Herald.....	54
Life.....	21	Saint Louis Globe-Democrat.....	32
New York Clipper.....	26		

REQUISITIONS FOR PRINTING AND BINDING.

There were recorded in this branch and transmitted to the Public Printer during the last fiscal year 401 requisitions for "printing and binding." The total cost of the work for this office chargeable to the appropriation for that purpose for the year was \$10,449.23.

These requisitions were for the various record and index books, and blank forms, etc., required for use in the Quartermaster-General's Office, and for the supply of the Quartermaster's Department throughout the country.

They varied in price from a label costing 25 cents to blank books and forms costing hundreds of dollars. An estimate of each job was required before the final order was given to print, bind, or manufacture, so that the allotment allowed by the Secretary of War for this Bureau should not be exceeded, great care also being taken to make requisitions only for articles and materials absolutely necessary for the transaction of public business.

An itemized report of the work for and furnished by the Public Printer is unnecessary, but in part may be mentioned—

Blank books	354
Blank forms	1, 010, 420
Office envelopes	92, 000
Monthly roster of officers, Quartermaster's Department.....	8, 550

and added to these many other articles less expensive, but of equal value to the public service, such as manufacture of tags, labels, binding of letters sent, binding of circulars and general orders, rebinding of old record and other books, printing of official heading on note and letter paper, and printing of clothing and other specifications, etc.

I am, general, very respectfully, your obedient servant,

JAMES GILLISS,

Major and Quartermaster, U. S. Army.

Brig. Gen. S. B. HOLABIRD,
Quartermaster-General, U. S. Army.

A.—Statement of all troops and property transported under direction of the Quartermaster's Department during the fiscal year ending June 30, 1888.

	By railroad.	By water.	By wagon.	By stage.	By Govern- ment ves- sels.	Grand total.
Passengers:	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>
Officers	2, 690	343		341	29, 943	33, 317
Men	31, 178	2, 549		2, 278	296, 690	332, 695
Total	33, 868	2, 892		2, 619	326, 633	366, 012
Animals:						
Horses	989	41				1, 030
Mules	565	82				647
Total	1, 554	123				1, 677
Stores:	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Subsistence	35, 540, 158	3, 352, 125	21, 096, 731	631	221, 194	61, 110, 839
Quartermasters	50, 018, 627	4, 486, 858	46, 560, 750	49	189, 088	101, 255, 972
Ordnance	10, 053, 914	1, 637, 025	5, 185, 984	48	53, 404	16, 930, 375
Medical	2, 089, 454	186, 124	2, 090, 417	121	9, 830	4, 375, 046
Signal Service	838, 225	136, 026	457, 519	573	674	1, 423, 017
Miscellaneous	12, 835, 882	1, 496, 287	30, 003, 584	2, 285	1, 623, 204	46, 161, 242
Total	111, 366, 260	11, 464, 445	106, 294, 985	3, 707	2, 097, 994	231, 257, 891

B.—Table showing the principal movements of troops during the fiscal year ending June 30, 1888.

Regiment and company.	From Depart- ment of—	To Depart- ment of—	Stations before move- ment.	Stations after movement.
Third Cavalry:				
D.....	The Missouri	Texas.....	Fort Sill, Ind. T.....	Fort Ringgold, Tex.
H.....	do	do	do	Fort McIntosh, Tex.
I.....	do	do	Fort Elliott, Tex.....	Fort Brown, Tex.
K.....	do	do	do	Do.
Headquarters.....	Texas.....	do	Fort Davis, Tex.....	Fort Clark, Tex.
A.....	do	do	Fort Concho, Tex.....	Do.
B.....	do	do	Camp Pena Colorado, Tex.	San Antonio, Tex.
C.....	do	do	Fort Davis, Tex.....	Fort Clark, Tex.
E.....	do	do	Fort Hancock, Tex.....	Do.
F.....	do	do	Fort Davis, Tex.....	Do.
G.....	do	do	Fort Clark, Tex.....	San Antonio, Tex.
L.....	do	do	Fort Davis, Tex.....	Do.
M.....	do	do	do	Fort Clark, Tex.
Fourth Cavalry:				
B.....	Arizona.....	The East.....	Fort Huachuca, Ariz.....	Fort Meyer, Va.
Fifth Cavalry:				
Headquarters.....	The Missouri	The Missouri	Fort Riley, Kans.....	Fort Reno, Ind. T.
D.....	do	do	do	Fort Sill, Ind. T.
E.....	do	do	do	Fort Elliott, Tex.
H.....	do	do	do	Do.
L.....	do	do	do	Fort Sill, Ind. T.
Sixth Cavalry:				
B.....	do	The East.....	Fort Lewis, Colo.....	Fort Myer, Va.
Seventh Cavalry:				
Headquarters.....	Dakota.....	The Missouri	Fort Meade, Dak.....	Fort Riley, Kans.
A.....	do	do	Fort Keogh, Mont.....	Do.
B.....	do	do	Fort Meade, Dak.....	Do.
C.....	do	do	do	Do.
D.....	do	do	do	Do.
E.....	do	do	Fort Yates, Dak.....	Fort Sill, Ind. T.
F.....	do	do	Fort Meade, Dak.....	Do.
G.....	do	do	do	Fort Riley, Kans.
H.....	do	do	Fort Yates, Dak.....	Fort Sill, Ind. T.
I.....	do	do	Fort Meade, Dak.....	Fort Riley, Kans.
K.....	do	do	do	Fort Sill, Ind. T.
L.....	do	do	do	Fort Riley, Kans.
M.....	do	do	do	Do.
Eighth Cavalry:				
Headquarters.....	Texas.....	Texas.....	San Antonio, Tex.....	Fort Davis, Tex.
A.....	do	do	Fort McIntosh, Tex.....	Do.
B.....	do	do	Fort Brown, Tex.....	Fort Concho, Tex.
C.....	do	do	San Antonio, Tex.....	Fort Davis, Tex.
D.....	do	do	Fort Clark, Tex.....	Do.
F.....	do	do	do	Do.
G.....	do	do	do	Camp Pena Colorado, Tex.
H.....	do	do	San Antonio, Tex.....	Fort Davis, Tex.
I.....	do	do	Fort Ringgold, Tex.....	Fort Concho, Tex.
L.....	do	do	Fort Clark, Tex.....	Fort Hancock, Tex.
M.....	do	do	Fort Brown, Tex.....	Fort Concho, Tex.
Eighth Cavalry:				
Headquarters.....	do	Dakota.....	Fort Davis, Tex.....	Fort Meade, Dak.*
A.....	do	do	do	Do.*
B.....	do	do	Fort Concho, Tex.....	Do.*
C.....	do	do	Fort Davis, Tex.....	Do.*
D.....	do	do	do	Do.*
E.....	do	do	Eagle Pass, Tex.....	Fort Buford, Dak.*
F.....	do	do	Fort Davis, Tex.....	Fort Yates, Dak.*
G.....	do	do	Camp Pena Colorado, Tex	Do.*
H.....	do	do	Fort Davis, Tex.....	Fort Keogh, Mont.*
I.....	do	do	Fort Concho, Tex.....	Fort Meade, Dak.*
K.....	do	do	Camp Del Rio, Tex.....	Fort Buford, Dak.*
L.....	do	do	Fort Hancock, Tex.....	Fort Keogh, Mont.*
M.....	do	do	Fort Concho, Tex.....	Fort Meade, Dak.*
First Artillery:				
F.....	California.....	The East.....	Presidio of San Francisco	Fort Monroe, Va.
G.....	The East.....	California.....	Fort Monroe, Va.....	Alcatraz Island, Cal.
Third Infantry:				
Headquarters.....	Dakota.....	Dakota.....	Fort Shaw, Mont.....	Fort Snelling, Minn.
A.....	do	do	do	Do.
B.....	do	do	Fort Missoula, Mont.....	Fort Meade, Dak.
C.....	do	do	Fort Custer, Mont.....	Do.
D.....	do	do	Fort Missoula, Mont.....	Fort Snelling, Minn.
E.....	do	do	Fort Custer, Mont.....	Do.
F.....	do	do	Fort Missoula, Mont.....	Fort Meade, Dak.
G.....	do	do	Fort Shaw, Mont.....	Fort Sisseton, Dak.
H.....	do	do	do	Fort Snelling, Minn.

*En route June 30, 1888.

B.—Table showing the principal movements of troops, etc.—Continued.

Regiment and company.	From Depart- ment of—	To Depart- ment of—	Stations before move- ment.	Stations after movement.
Third Infantry— Continued.				
I.....	Dakota.....	Dakota.....	Fort Missoula, Mont.....	Fort Meade, Dak.
K.....	do.....	do.....	Fort Shaw, Mont.....	Fort Snelling, Minn.
Fifth Infantry:				
Headquarters..	do.....	Texas.....	Fort Keogh, Mont.....	Fort Bliss, Tex.
A.....	do.....	do.....	do.....	Fort Ringgold, Tex.
B.....	do.....	do.....	do.....	Fort Bliss, Tex.
C.....	do.....	do.....	Fort A. Lincoln, Dak.....	Fort McIntosh.
D.....	do.....	do.....	Fort Keogh, Mont.....	Fort Brown, Tex.
E.....	do.....	do.....	do.....	Fort Bliss, Tex.
F.....	do.....	do.....	Fort Totten, Dak.....	Fort McIntosh, Tex.
G.....	do.....	do.....	Fort Keogh, Mont.....	Fort Ringgold, Tex.
H.....	do.....	do.....	do.....	Fort Hancock, Tex.
I.....	do.....	do.....	do.....	Fort Davis, Tex.
K.....	do.....	do.....	Fort Totten, Dak.....	Do.
Sixth Infantry:				
A.....	The Platte.....	The Missouri.....	Fort Douglas, Utah.....	Fort Lewis, Colo.
B.....	do.....	do.....	do.....	Do.
C.....	do.....	do.....	do.....	Do.
D.....	do.....	do.....	do.....	Do.
E.....	do.....	do.....	do.....	Do.
G.....	do.....	do.....	do.....	Do.
Eleventh Infantry:				
Headquarters..	Dakota.....	The East.....	Fort Sully, Dak.....	Madison Barracks, N. Y.
A.....	do.....	do.....	do.....	Do.
B.....	do.....	do.....	Fort Yates, Dak.....	Fort Wood, N. Y. H.
C.....	do.....	do.....	do.....	Fort Ontario, N. Y.
D.....	do.....	do.....	Fort Sully, Dak.....	Madison Barracks, N. Y.
E.....	do.....	do.....	do.....	Fort Niagara, N. Y.
F.....	do.....	do.....	Fort Yates, Dak.....	Plattsburgh Barracks, N. Y.
G.....	do.....	do.....	Fort A. Lincoln, Dak.....	Madison Barracks, N. Y.
H.....	do.....	do.....	Fort Yates, Dak.....	Do.
I.....	do.....	do.....	Fort Bennett, Dak.....	Do.
K.....	do.....	do.....	Fort Sully, Dak.....	Fort Niagara, N. Y.
Twelfth Infantry:				
Headquarters..	The East.....	Dakota.....	Madison Barracks, N. Y.	Fort Yates, Dak.
A.....	do.....	do.....	Fort Wood, N. Y. H.	Fort Sully, Dak.
B.....	do.....	do.....	Madison Barracks, N. Y.	Do.
C.....	do.....	do.....	Plattsburgh Barracks, N. Y.	Do.
D.....	do.....	do.....	Madison Barracks, N. Y.	Do.
E.....	do.....	do.....	Fort Niagara, N. Y.	Fort Yates, Dak.
F.....	do.....	do.....	Madison Barracks, N. Y.	Fort A. Lincoln, Dak.
G.....	do.....	do.....	do.....	Fort Yates, Dak.
H.....	do.....	do.....	Fort Ontario, N. Y.	Do.
I.....	do.....	do.....	Madison Barracks, N. Y.	Do.
K.....	do.....	do.....	Fort Niagara, N. Y.	Fort Bennett, Dak.
Thirteenth Inf.:				
Headquarters..	Arizona.....	The Missouri.....	Fort Wingate, N. Mex.	Fort Supply, Ind. T.
A.....	do.....	do.....	Fort Bayard, N. Mex.	Fort Sill, Ind. T.
B.....	do.....	do.....	do.....	Fort Supply, Ind. T.
C.....	do.....	do.....	Fort Stanton, N. Mex.	Fort Reno, Ind. T.
D.....	do.....	do.....	Fort Wingate, N. Mex.	Fort Supply, Ind. T.
E.....	do.....	do.....	Fort Stanton, N. Mex.	Fort Reno, Ind. T.
F.....	do.....	do.....	Fort Wingate, N. Mex.	Fort Lyon, Colo.
G.....	do.....	do.....	do.....	Fort Elliott, Tex.
H.....	do.....	do.....	do.....	Fort Supply, Ind. T.
I.....	do.....	do.....	do.....	Fort Elliott, Tex.
Fourteenth Inf.:				
I.....	The Colum- bia.	The Missouri.....	Vanconver Barracks, Wash.	Fort Leavenworth, Kans.
Sixteenth Inf.:				
Headquarters..	Texas.....	The Platte.....	Fort Bliss, Tex.....	Fort Douglas, Utah.
A.....	do.....	do.....	San Antonio, Tex.....	Fort Duchesne, Utah.
B.....	do.....	do.....	Fort Bliss, Tex.....	Fort Douglas, Utah.
C.....	do.....	do.....	Fort Concho, Tex.....	Fort Duchesne, Utah.
D.....	do.....	do.....	Fort Ringgold, Tex.....	Fort Douglas, Utah.
E.....	do.....	do.....	Fort McIntosh, Tex.....	Do.
F.....	do.....	do.....	San Antonio, Tex.....	Fort Duchesne, Utah.
G.....	do.....	do.....	do.....	Fort Douglas, Utah.
H.....	do.....	do.....	Fort Bliss, Tex.....	Do.
I.....	do.....	do.....	Fort Davis, Tex.....	Do.
K.....	do.....	do.....	San Antonio, Tex.....	Fort Duchesne, Utah.
Twenty-second Inf.:				
Headquarters..	The Missouri.....	Dakota.....	Fort Lyon, Colo.....	Fort Keogh, Mont.
A.....	do.....	do.....	Fort Lewis, Colo.....	Do.
B.....	do.....	do.....	do.....	Do.
C.....	do.....	do.....	Fort Lyon, Colo.....	Do.

B.—Table showing the principal movements of troops, etc.—Continued.

Regiment and company.	From Department of—	To Department of—	Stations before movement.	Stations after movement.
Twenty-second Infantry—Cont'd.				
D	The Missouri	Dakota	Fort Lewis, Colo.	Fort Keogh, Mont.
E	Arizona	do	Fort Marcy, N. Mex.	Fort Totten, Dak.
F	The Missouri	do	Fort Lyon, Colo.	Fort Keogh, Mont.
G	do	do	Fort Lewis, Colo.	Fort Totten, Dak.
H	do	do	do	Fort Keogh, Mont.
I	do	do	Fort Lyon, Colo.	Fort A. Lincoln, Dak.
K	do	do	Fort Lewis, Colo.	Fort Keogh, Mont.
Twenty-fourth Inf.				
Headquarters ..	The Missouri	Arizona	Fort Supply, Ind. T	Fort Bayard, N. Mex.
A	do	do	Fort Reno, Ind. T	Do.
B	do	do	Fort Elliott, Tex	Fort Thomas, Ariz.
C	do	do	Fort Sill, Ind. T	San Carlos, Ariz.
D	do	do	Fort Supply, Ind. T	Fort Bayard, N. Mex.
E	do	do	Fort Sill, Ind. T	San Carlos, Ariz.
F	do	do	Fort Elliott, Tex	Fort Bayard, N. Mex.
G	do	do	Fort Sill, Ind. T	Fort Apache, Ariz.
H	do	do	Fort Supply, Ind. T	Fort Grant, Ariz.
I	do	do	Fort Sill, Ind. T	Fort Apache, Ariz.
K	do	do	Fort Reno, Ind. T	Fort Grant, Ariz.
Twenty-fifth Inf.				
Headquarters ..	Dakota	Dakota	Fort Snelling, Minn.	Fort Missoula, Mont.
A	do	do	Fort Meade, Dak	Fort Custer, Mont.
B	do	do	Fort Snelling, Minn	Fort Shaw, Mont.
C	do	do	do	Do.
D	do	do	Fort Meade, Dak	Fort Custer, Mont.
E	do	do	Fort Sisseton, Dak	Fort Shaw, Mont.
F	do	do	Fort Snelling, Minn	Do.
G	do	do	Fort Sisseton, Dak	Fort Missoula, Mont.
H	do	do	Fort Meade, Dak	Do.
I	do	do	Fort Snelling, Minn	Do.
K	do	do	Fort Meade, Dak	Do.

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C.—Statement of vessels owned or purchased by the Government and employed in the Quartermaster's Department during the fiscal year ending June 30, 1888.

Name.	Class.	Tonnage.	When purchased or built.	Estimated cost or value.	By whom employed.	Where employed.	Amount paid for repairs.	Amount paid for running expenses, including crew's wages.	Total expenses.
Chester A. Arthur *.	Steamer	178.70	June 30, 1876	\$28,000.00	Lieut. Col. J. G. Chandler, U. S. Army, depot quartermaster.	New York Harbor, N. Y.	\$109.75	\$12,305.74	\$12,415.49
Ordnance *.	Propeller	75.00	June 30, 1876	18,000.00	do.	do.	5,831.65	6,643.75	112,475.40
Resolute	Steam-tug	70.30	Nov. 14, 1879	17,947.46	Depot quartermaster	Boston, Mass.	3,895.26	8,252.40	12,247.66
Atlantio	do.	60.31	Oct. 13, 1878	13,865.56	Post quartermaster	Governor's Island, New York Harbor.	501.64	10,405.57	10,907.21
Monroe	Steam-launch	62.35	Nov. 30, 1875	15,200.00	do.	Fort Adams, R. I.	9.94	2,050.25	2,060.19
Thayer	do.	32.36	Oct. 8, 1874	7,200.00	do.	Governor's Island, N. Y., Fort Hamilton, N. Y., Fort Wadsworth, N. Y.	730.07	1,016.45	1,746.52
Barranca	do.	28.01	Nov. 7, 1874	5,750.00	do.	Fort Barranca, Fla.	922.07	2,738.19	3,650.26
General Wool	Propeller	97.00	Sept. 1, 1883	27,870.80	do.	Fort Monroe, Va.	835.06	4,215.03	5,070.06
Belle of the Bay	Sloop	16.00	July 25, 1882	275.00	do.	Saint Francis Barracks, Fla.	()	()	()
General McDowell	Propeller	160.00	Nov. 17, 1886	56,150.00	Chief quartermaster, Division Pacific.	San Francisco, Cal.	3,330.43	25,138.26	28,468.69
Amelia Wheaton	Steam-launch	40.00	Aug. 20, 1880	8,000.00	Post quartermaster	Fort Sherman, Idaho.	3,681.83	3,071.66	6,753.49
Hamilton	do.	37.68	Feb. 1, 1875	7,800.00	Depot quartermaster	David's Island, New York Harbor.	14,045.72	3,071.66	17,117.38
* Total							20,311.58	76,529.13	96,840.71

* Run under contract.

† Paid for hire of vessels in place of the Ordnance.

‡ While laid up, \$9,882.50.

§ None reported.

§ Amount paid for temporary hire of substitute \$1,520 (see statement). Includes \$500 for towing raised from St. Joseph River, where she sank November 20, 1887, and floating her.

|| Includes new boiler and condenser.

D.—Statement of vessels chartered, impressed, or employed by the Quartermaster's Department during the fiscal year ending June 30, 1888.

Name.	Class.	Ton- nage.	When char- tered.	Period of service.		Rate of pay.	Total earnings.	Remarks.
				From—	To—			
James Bowen ¹	Propeller.	67.12	{ Aug. 13, 1887 Nov. 21, 1887	Aug. 15, 1887	Aug. 31, 1887	\$67 per day ²	\$1,170.00	Coal, \$208.80.
Oseco ¹	Steamer	100.00	{ Nov. 9, 1887 Dec. 1, 1887	Nov. 21, 1887	Nov. 30, 1887	\$65 per day ²	670.00	Coal, \$121.80.
James Bowen ¹	Propeller.	67.12	{ Dec. 1, 1887 Jan. 22, 1888	Dec. 1, 1887	Jan. 21, 1888	\$67 per day ²	3,415.00	Coal furnished from David's Island.
Oseco ¹	Steamer	100.00	{ Jan. 22, 1888 Jan. 1, 1888	Jan. 22, 1888	Jan. 31, 1888	do	3,910.50	Coal, \$548.10.
J. W. Husted ¹	Propeller.	70.00	{ Jan. 1, 1888 Feb. 1, 1888	Jan. 1, 1888	Jan. 25, 1888	\$65 per day	234.50	Coal furnished at Governor's Island.
James Bowen ¹	do	67.12	{ Feb. 1, 1888 May 16, 1888	Jan. 25, 1888	May 16, 1888	\$67 per day ²	1,170.00	Coal furnished at David's Island.
Emperor ¹	Steam-tug	70.00	{ June 16, 1888 June 18, 1888	May 16, 1888	June 16, 1888	\$80 per day ²	201.00	Coal, \$30.45.
Julia ⁴	Steamer	80.00	{ May 28, 1888 Aug. 14, 1887	June 16, 1888	Aug. 14, 1887	do	538.00	Coal furnished at Governor's Island.
Nellie ⁷	Sloop	6.00	July 1, 1887	July 1, 1887	Dec. 30, 1887	\$4 per month.	80.00	Do.
Sylph ⁷	do	11.00	Jan. 1, 1888	Jan. 1, 1888	June 30, 1888	\$16 per month.	400.00	In place of steamer <i>Resolute</i> , while undergoing repairs.
Native ⁷	do	8.00	July 1, 1887	July 1, 1887	June 30, 1888	\$25 per month.	58.50	Transporting troops, etc., between New London and Fisher's Island (calling each day).
Relief ⁷	Schooner	30.00	July 1, 1887	July 1, 1887	June 30, 1888	\$50 per month.	24.00	(Carrying mail and supplies between Biloxi and Ship Island, Miss.)
General Canby ⁸	Tug	44.88	Apr. 30, 1887	July 1, 1887	June 30, 1888	\$24 and \$27 per trip	96.00	Carrying mail and supplies between Mobile and Fort Gaines and Morgan.
Relief ⁹	do	102.14	Oct. 28, 1887	Dec. 3, 1887	Dec. 24, 1887	\$80 per day	600.00	Carrying mail and supplies between Key West and Fort Jefferson.
Helen ⁹	Steam-boat	352.00	May 17, 1888	Trip	do	Special	9,953.50	Between Astoria, Oregon, and Fort Canby, Wash. not used exclusively by Quartermaster's Department during period.
General Terry ¹⁰	do	353.00	May 17, 1888	do	do	do	1,520.00	As substitute for steamer <i>General McDonnell</i> .
Total							6,445.55	(For moving the Fifth Infantry from Bismarck, Dak., to Kansas City, Mo.)
							35,025.55	

¹ Charter money payable at New York City; employed by depot quartermaster, New York.

² Charter money payable at Boston, Mass.; employed by depot quartermaster.

³ Charter money payable at Fort Trumbull, Conn.; employed by post quartermaster.

⁴ Charter money payable at New Orleans, La.; employed by depot quartermaster.

⁵ Charter money payable at Portland, Oregon; employed by chief quartermaster, Department of the Columbia.

⁶ Not known.

⁷ With entire crew.

⁸ Including engineer and fireman.

⁹ Charter money payable at San Francisco, Cal.; employed by Col. A. J. Perry, assistant quartermaster-general.

¹⁰ Charter money payable at St. Paul; employed by chief quartermaster, Department of Dakota.

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department, received at the office of the Quartermaster-General during the fiscal year ending June 30, 1888.

Contracting officer.	Contractor.	Date of contract.	Date of expiration of contract.	Route of supply.	Rates.
Lieut. M. Crawford, Second Artillery, A. A. Q. M., Fort Barrancas, Fla.	Frederick Bauer and George W. Almsworth.	Sept. 16, 1887	June 30, 1888	Hauling between railroad depots at Pensacola, Fla., and at wharf at Fort Barrancas and Fort Pickens.	20 cents per 100 pounds.
Lieut. Col. G. B. Dandy, D. Q. M. G. U. S. Army, depot Q. M., Washington, D. C.	Frederick Springmann and Charles E. Springmann.	Dec. 1, 1887	.....do	Hauling between railroad depots at Pensacola, Fla., and steam-launch Barrancas at Pensacola, Fla.	12 cents per 100 pounds.
Capt. D. H. Floyd, A. Q. M., Buffalo, N. Y.	Thomas Ahearn	July 1, 1887	.....do	Hauling in and around Washington and Georgetown, D. C., and Soldiers' Home and Soldiers' Home National Cemetery, and between Washington and Georgetown and Fort Myer and Arlington National Cemetery and Alexandria, Va.	Various.
				Hauling in and around Buffalo, N. Y.	For each and every full load, actual or estimated 1,500 pounds per load or fraction thereof, 60 cents per mile (first mile). For any distance exceeding 1 mile and not exceeding 2 miles, at the rate of 60 cents for the first mile and 40 cents for the second mile; and for any distance exceeding 2 miles and not exceeding 3 miles, 60 cents for the first mile, 40 cents for the second mile, and 35 cents for the third mile.
Capt. C. A. Booth, A. Q. M., Fort Monroe, Va.	R. M. Booker	Oct. 17, 1887	.....do	Hauling from quartermaster's yard, Fort Monroe, Va., to fresh-water pumping station, Mill Creek, Va.	4 cents per 100 pounds.
Lieut. Charles Hay, Twenty-third Infantry, A. A. Q. M., Fort Porter, N. Y.	Henry P. Baltzer	July 1, 1887	.....do	Hauling to and from wharves and railroad depots, as may be designated, to any of the military reservations, Fort Monroe, Va.	\$1.50 per load of 1,500 pounds or fraction thereof.
Do	George J. Haysnuch	Aug. 28, 1887	.....do	Hauling between Bay View railway station and Bay View target range, New York.	\$5 per load of 1,500 pounds or fraction thereof.
Lieut. Col. Henry C. Hodges, D. Q. M. G. U. S. Army, depot Q. M., New York City.	Timothy Sullivan	May 21, 1887	.....do	Collect and haul away from the military reservation of Fort Porter, N. Y., all cinders, ashes, sweepings, and other refuse or garbage of any and every kind that may accumulate on said premises.	For the whole service \$250, in equal monthly installments, at the end of each calendar month.
				Take charge of and navigate the steamer <i>Ordnance</i> , pay and victual her crew.	\$5.05 per annum, in equal monthly installments, on the last day of each month.

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department, etc.—Continued.

Contracting officer.	Contractor.	Date of contract.	Date of expiration of contract.	Route of supply.	Rates.
Lieut. Col. Henry C. Hodges, D. Q. M. G., U. S. Army, depot Q. M., New York City.	Joseph A. Baulsair.....	May 21, 1887	June 30, 1888	Take charge of and navigate the steamer <i>Chester A. Arthur</i> , pay and victual her crew.	\$8,650 per annum, in equal monthly installments, on the last day of each month.
Maj. E. B. Kirk, Q. M., U. S. Army, Atlanta, Ga.	Dennis Edwards.....	Apr. 2, 1888	....do.....	Hauling in and around Atlanta, Ga.	35 cents for each and every load hauled, the maximum load not to exceed 1,500 pounds.
Capt. J. W. Jacobs, A. Q. M., Atlanta, Ga.	E. M. Clayton and G. W. Clayton.	Feb. 20, 1888	....do.....	Hauling dirt, rock, or public property, as may be required, on the United States military reservation near Atlanta, Ga., or vicinity.	\$3 per day for each two mule or horse team, with driver and outfit complete; \$2 per day for each cart, with driver and outfit complete.
Lieut. C. P. Miller, Fourth Artillery, A. A. Q. M.	John Connolly.....	July 1, 1887	....do.....	Transportation between Newport and Fort Adams, R. I.	\$1 for each 1,000 pounds of freight.
Maj. J. W. Reilly (Ord.), A. A. Q. M., Augusta Arsenal, Ga.	P. G. Burum & Co.....	June 17, 1887	....do.....	Hauling in and around Augusta Arsenal, Ga.	10 cents per 100 pounds.
Lieut. P. G. Wood, Twelfth Infantry, A. Q. M., Fort Niagara, N. Y.	Isaac Loyd.....	Aug. 1, 1887	....do.....	Hauling between the railroad depot at Lewiston, N. Y., and Fort Niagara, N. Y.	7 cents per 100 pounds for the whole distance.
Capt. O. E. Michaelle (Ord.), A. A. Q. M., Kennebec Arsenal, Me.	James N. Wade.....	Aug. 20, 1887	....do.....	Hauling in and around Kennebec Arsenal, Me.	45 cents per load, single team; 40 cents per hour single team; 60 cents per hour double team.
Lieut. Col. M. I. Lindington, D. Q. M. G., U. S. Army, Philadelphia, Pa.	W. J. Crawford.....	June 22, 1887	....do.....	Hauling in and around Philadelphia, Pa.	Various.
Maj. A. G. Robinson, Q. M., U. S. Army, Boston, Mass.	T. Libby & Co.....	July 1, 1887	....do.....	Hauling in and around Boston, Mass.	Do.
Capt. Frank Heath (Ord.), A. A. Q. M., West Troy, N. Y.	Michael Kennan.....	May 31, 1888	June 30, 1889	Route No. 1, between Watervliet Arsenal and any freight station or wharf in Troy, any freight station in Watervliet or other points within the limits of the city of Troy and the town of Watervliet.	70 cents per load of 1,500 pounds or less.
				Route No. 2, between arsenal, river, or canal dock and any point within the arsenal limits.	35 cents per load of 1,500 pounds or less.
				Route No. 3, between the arsenal limits.	35 cents per hour for double team; 15 cents per hour for single team.
Lieut. Col. J. G. Chandler, D. Q. M. G., U. S. A., in charge of depot, New York City.	Charles E. Rankins...	June 19, 1888do.....	Hauling in and around New York City.	For each and every carman's load of 5 barrels of pork, 7 barrels of flour, or 1,500 pounds weight or 30 cubic feet measurement of other stores or any fraction thereof, 30 cents for a distance of 1 mile or less; 45 cents for a distance of more than 1 mile and not exceeding 2 miles; 15 cents for a distance of more than 2 miles and not exceeding 3 miles; and for every mile exceeding 3 miles 5 cents.

QUARTERMASTER-GENERAL.

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Do	Daniel Shes	June 15, 1888do	Furnish vessels to take the place of the steamers <i>Chester A. Arthur</i> , <i>Atlanta</i> , and <i>Ordance</i> for services in New York Harbor.	\$97 per day for each vessel employed, including the engineer and fireman when employed by the day, and \$10 per hour when employed by the hour, and for the remainder of the crew, when required, \$13 per day.
Do	Timothy Sullivan	.....do	.....do	Take charge of and navigate the steamer <i>Ordance</i> , pay and victual her crew.	\$421 per month, payable on the last day of each month.
Do	Joseph A. Baulisr	.....do	.....do	Take charge of and navigate the steamer <i>Chester A. Arthur</i> , pay and victual her crew.	\$8,650 per annum, in equal monthly installments, on the last day of each month.
Capt. A. S. M. Morgan (Ord.), A. A. Q. M., Allegheny Arsenal, Pa.	Joseph A. Bender	June 7, 1888	.....do	Hauling in and around Allegheny Arsenal, Pa.	25 cents for each 100 pounds, and 25 cents for every load of less than 100 pounds.
Maj. J. W. Reilly (Ord.), A. A. Q. M., Augusta Arsenal, Ga.	Lucius Rakestraw	May 23, 1888	.....do	Hauling in and around Augusta Arsenal, Ga.	12½ cents per 100 pounds for loads of 1,000 pounds and over, or for a trip with less than 1,000 pounds, \$1.
Lieut. Col. H. C. Hodges, D. Q. M. G., in charge of depot, Jeffersonville, Ind.	Jacob S. Fry and Eugene Frazier	June 25, 1888	.....do	Hauling to and from Jeffersonville depot and the railroad switch north side of said depot.	1½ cents per 100 pounds or fraction thereof.
Lieut. Col. M. I. Lindington, D. Q. M. G., in charge of depot, Philadelphia, Pa.	William Crawford	June 8, 1888	.....do	Hauling to and from all other points in and around Jeffersonville, Ind.	1½ cents per 100 pounds or fraction thereof.
Do	John Cather	.....do	.....do	Hauling at Philadelphia, Pa., from Schuykill Arsenal.	Various.
Capt. Henry J. Haynsworth, A. Q. M., Buffalo, N. Y.	Thomas Ahearn	June 15, 1888	.....do	Hauling at Philadelphia, Pa., from Frankford Arsenal.	Do.
Lieut. Col. G. B. Dandy, D. Q. M. G., in charge of depot, Washington, D. C.	Samuel Springman	June 20, 1888	.....do	Hauling in and around Buffalo, N. Y.	13 cents per 100 pounds.
				Hauling in and around Washington and Georgetown, D. C., and Soldiers' Home and Soldiers' Home National Cemetery, and from and to the Battle Ground National Cemetery, and between Washington and Georgetown and Fort Myer and Arlington National Cemetery and Alexandria, Va.	Various.
Maj. E. B. Kirk, Q. M., U. S. A., Atlanta, Ga.	Dennis Edwards	June 16, 1888	.....do	Hauling in and around Atlanta, Ga.	50 cents per load, maximum load not to exceed 1,500 pounds.
Capt. O. E. Michaelis (Ord.), A. A. Q. M., Kennebec Arsenal, Me.	James N. Wade	June 15, 1888	.....do	Hauling in and around Kennebec Arsenal, Me., and between Augusta, Me., and Kennebec Arsenal.	50 cents per load, single teams; 30 cents per hour, single teams; and 50 cents per hour, double teams.
Maj. James Gillies, C. Q. M., Department of the Missouri, Fort Leavenworth, Kans.	Crescencie Mascarenas	June 2, 1887	June 30, 1888	Between Fort Lyon, Colo., and Las Animas, Colo.	94 cents per 100 pounds for the whole distance.
Do	P. B. Monel	June 3, 1887	.....do	Between Fort Crawford, Colo., and Montrose, Colo.	23 cents per 100 pounds for the whole distance.
Do	R. E. Sloan and T. C. Graden	May 26, 1887	.....do	Between Fort Lewis, Colo., and Durango, Colo.	25 cents per 100 pounds for the whole distance.

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department, etc.—Continued.

Contracting officer.	Contractor.	Date of contract.	Date of expiration of contract.	Route of supply.	Rates.
Maj. James Gillis, C. Q. M., Department of the Missouri, Fort Leavenworth, Kans.	James Stanton.....	May 27, 1887	June 30, 1888	Hauling between all points on the military reservation of Fort Leavenworth, Kans., including the freight depot of the Chicago, Rock Island and Pacific Railway Company.	1½ cents per 100 pounds for the whole distance.
Do.....	Isaac Zeigler.....	May 25, 1887	do.....	Hauling between any point on the reservation and any point in the city of Fort Leavenworth, Kans.	2 cents per 100 pounds for the whole distance.
Do.....	Benjamin L. La Fay, etc.	do.....	do.....	Hauling and cording wood.	35 cents per cord.
Do.....	W. D. Moore.....	do.....	do.....	Hauling coal and putting it in the coal houses.	30 cents per ton of 2,000 pounds.
Maj. C. W. Foster, C. Q. M., De- partment of the Missouri, Fort Leavenworth, Kans.	William C. Biggert....	Mar. 9, 1888	June 30, 1889	Hauling between Fort Hays, Kans., and the railroad station at Hays City, Kans.	4 cents per 100 pounds for the whole distance, or 25 cents per load of less than 500 pounds.
Do.....	James Rennie.....	do.....	do.....	Hauling between Fort Gibson, Ind. T., and the railroad station at Gibson or Muscogee, Ind. T.	11 cents per 100 pounds for the whole distance.
Do.....	Robert A. Chisholm....	Mar. 15, 1888	do.....	Hauling between Fort Riley, Kans., and the railroad station at Fort Riley and Junction City, Kans.	2 cents per 100 pounds for the whole distance.
Do.....	W. W. Dickerson.....	Mar. 9, 1888	do.....	Route No. 1, between Oklahoma Station, Ind. T., and Fort Reno, Ind. T., 33 miles.	97 cents per 100 pounds for the whole distance, and \$1.02 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Capt. James Rockwell, Jr. (Ord.), A. A. Q. M., Rock Island Arsenal, Ill.	Thomas Barnes.....	June 16, 1887	June 30, 1888	Route No. 2, between Paul's Valley, Ind. T., and Fort Sill, Ind. T., 76.66 miles.	82 cents per 100 pounds per 100 miles.
Do.....	John Carroll.....	do.....	do.....	Route No. 3, between Woodward, Ind. T., and Fort Supply, Ind. T., 15.25 miles.	\$1.30 per 100 pounds per 100 miles.
Do.....	John Carroll.....	do.....	do.....	Route No. 4, between Miami, Tex., and Fort Elliott, Tex., 18.7 miles.	18½ cents per 100 pounds for the whole distance, and \$1.02 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do.....	John Carroll.....	do.....	do.....	Hauling between the arsenal and the railway depots and wharves in the cities of Davenport, Rock Island, and Moline.	80 cents per each load of less than 1500 pounds, and 4 cents per 100 pounds for loads of 1,500 pounds or over.
Do.....	John Carroll.....	do.....	do.....	Hauling in and around the arsenal and cars on the arsenal tracks.	1½ cents per 100 pounds.
Do.....	John Carroll.....	do.....	do.....	Hauling coal (bituminous) from yards of the Coal Valley Mining Company at Rock Island, Ill., to Rock Island Arsenal.	2 cents per bushel of 80 pounds.

Lieut. Col. James M. Moore, D. Q. M. G., U. S. A., in charge of depot, Saint Louis, Mo.	Timothy Ryan	May 14, 1888	June 30, 1889	Hauling to and from, East Saint Louis, Ill., and from and to places in the city of Saint Louis, Mo., including the United States clothing depot. Hauling to and from United States clothing depot, from and to places in the city of Saint Louis, Mo., in- cluding railroad depots and boat landings. Hauling to and from railroad depots, boat landings and other places in the city of Saint Louis, Mo., from and to places in the city of Saint Louis, Mo., exclusive of the United States clothing depot. Remove all manure from the stables used by the Quartermaster's Im- partment in the city of Chicago, Ill. Hauling in and around Chicago, Ill. Hauling between the arsenal and the railway depots and wharves in the cities of Davenport, Rock Island, and Moline. Hauling bituminous coal from yards of the Coal Valley Mining Company at Rock Island, Ill., to Rock Island Arsenal. Between points on line of Cheyenne and Northern Railroad and Fort Laramie, Wyo. Between Fort Casper, Wyo., and Fort Washakie, Wyo. Hauling in and around Ogden, Utah..	4 cents per 100 pounds. 3 cents per 100 pounds. 2 cents per 100 pounds. \$16 per month. 2½ cents per 100 pounds. \$1 per load of less than 1,500 pounds; 5 cents per 100 pounds per load of 1,500 pounds or over. 1½ cents per bushel of 80 pounds.
Col. J. D. Bingham, A. Q. M., U. S. A., C. Q. M. Division of the Missouri, Chicago, Ill. Do Capt. James Rockwell, Jr., (Ord.), A. Q. M., Rock Isl. and Arsenal, Ill. Do	F. McCrink..... George D. Scott	July 8, 1887 June 4, 1888 June 18, 1888	June 30, 1888 June 30, 1889.....do	Between points on line of Cheyenne and Northern Railroad and Fort Laramie, Wyo. Between Fort Casper, Wyo., and Fort Washakie, Wyo. Hauling in and around Ogden, Utah..	\$1.18 per 100 pounds per 100 miles, and \$1.25 per 100 pounds per 100 miles between any and all other points within the boundaries of the route. \$1.19 per 100 pounds per 100 miles, and \$1.30 per 100 pounds per 100 miles between any and all other points within the boundaries of the route. 75 cents per wagon-load of 1,500 pounds or less, and 5 cents per 100 pounds when the quantity of freight exceeds 1,500 pounds. 8 cents per 100 pounds for coal and grain, and 8 cents per 100 pounds for all other stores; 6 cents per 100 pounds for coal and grain, and 19 cents per 100 pounds for all other stores; 3½ cents per 100 pounds for coal and grain, and 11 cents per 100 pounds for all other stores.
Maj. G. B. Dandy, C. Q. M., Department of the Platte, Omaha, Nebr. Do	Henry Burbank	June 6, 1887	June 30, 1888	Hauling between Cheyenne City and Cheyenne Quartermaster's depot, Wyoming. Hauling between Chey- enne City and Fort D. A. Russell, Wyo. Hauling between Cheyenne Quartermaster's depot and Fort D. A. Russell, Wyo. Between Carter, Wyo., and Fort Bridger, Wyo., 11 miles.	15½ cents per 100 pounds for the whole distance, and \$1.50 per 100 pounds per 100 miles between any and all other points within the boundaries of the route. 5½ cents per 100 pounds for coal, and 6½ cents per 100 pounds for all other classes of stores. 9½ cents per 100 pounds for coal, grain in sacks, 100 and all other classes of stores.
Maj. G. B. Dandy, C. Q. M., Department of the Platte, Omaha, Nebr. Do	Edwin B. Clute.....	Apr. 9, 1888	June 30, 1889	Hauling between Cheyenne City and Cheyenne Quartermaster's depot, Wyoming. Hauling between Chey- enne City and Fort D. A. Russell, Wyo. Hauling between Cheyenne Quartermaster's depot and Fort D. A. Russell, Wyo. Between Carter, Wyo., and Fort Bridger, Wyo., 11 miles.	15½ cents per 100 pounds for the whole distance, and \$1.50 per 100 pounds per 100 miles between any and all other points within the boundaries of the route. 5½ cents per 100 pounds for coal, and 6½ cents per 100 pounds for all other classes of stores. 9½ cents per 100 pounds for coal, grain in sacks, 100 and all other classes of stores.
Do .....	.....do .....	.....do .....	.....do	Hauling between Salt Lake City, Utah, and Fort Douglas, Utah. Hauling in and around Fort Casper, Wyo.	
Do	Lenox B. Shephard...	.....do .....	.....do		

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department, etc.—Continued.

Contracting officer.	Contractor.	Date of contract.	Date of expiration of contract.	Route of supply.	Rates.
Maj. William B. Hughes, C. G. M., Department of the Platte, Omaha, Nebr.	Lenox B. Shepherd	Apr. 9, 1888	June 30, 1889	Between Douglas, Wyo., and Fort McKinney, Wyo., 148 miles.	\$1.44 per 100 pounds for the whole distance, and \$1.22 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	do	do	do	Between Fort Casper, Wyo., and Fort McKinney, Wyo., 135 miles.	\$1.34 per 100 pounds for the whole distance, and \$1.30 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	do	do	do	Between Fort Casper, Wyo., and Fort Washakie, Wyo., 133 miles.	\$1.44 per 100 pounds for the whole distance, and \$1.30 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	James O'Kane	do	do	Hauling in and around Fort Sidney, Nebr.	1 cent per 100 pounds for coal and grain in sacks, and 2 cents per 100 pounds for all other classes of stores.
Do	L. M. Olson	do	do	Hauling in and around Price, Utah	23 cents per 100 pounds for all classes of stores.
Do	Noyes Baldwin	do	do	Between Rawlins, Wyo., and Fort Washakie, Wyo., 140 miles.	\$1.48 per 100 pounds for the whole distance, and \$1.20 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	John Hunton	do	do	Between Fort Laramie, Wyo., and Fort Laramie, Wyo., 27 miles.	27 cents per 100 pounds for the whole distance, and \$1.10 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	Samuel S. Jones and Charles H. Taylor	do	do	Between Price, Utah, and Fort DuChesne, Utah, 86 miles.	\$1.24 per 100 pounds for the whole distance, and \$1.50 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	William Clarke	do	do	Hauling in and around Ogden, Utah.	90 cents per wagon-load of 1,500 pounds or less, and 6 cents per 100 pounds when in excess of 1,500 pounds.
Do	J. M. Thacker	do	do	Hauling between Valentine, Nebr., and Fort Niobrara, Nebr.	6 cents per 100 pounds for coal; 5 cents per 100 pounds for grain in sacks, and 6 cents per 100 pounds for all other classes of stores.
Do	Fred. M. Guernsey	do	do	Hauling in and around Douglas, Wyo	5 cents per 100 pounds for coal, and 4 cents per 100 pounds for all other classes of stores.
Do	Charles J. Johnson	May 16, 1888	do	Drayage and handling of stores at Rawlins, Wyo.	50 cents per ton per man, with or without team; no charge to be made for team.
Do	William Dalton	Apr. 9, 1888	do	Hauling between Omaha quartermaster's depot, or any other points within the limits of the city of Omaha and Fort Omaha, Nebr.	4 cents per 100 pounds for coal, and 4 cents per 100 pounds for grain in sacks and all other classes of stores.

Do	do	do	do	do	Hauling between the quartermaster's depot and the several railroad depots, and between all other points within the limits of the city of Omaha, except hauling to and from Fort Omaha, Neb.	2 cents per 100 pounds per mile; no load, however, to be less than 50 cents.
Lieut. Col. James M. Moore, D. Q. M. G., U. S. A., C. Q. M., Department of Dakota, Saint Paul, Minn.	John W. Power	June 16, 1887	June 30, 1888	do	Route No. 5, between Helena, Mont., and Fort Assiniboine, Mont., 190 miles.	\$3.03 per 100 pounds for the whole distance, and \$2.64 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Thomas C. Power	Mar. 20, 1888	Oct. 31, 1888	do	do	Missouri River, between Fort Abraham, Lincoln, Dak., and Fort Benton, Mont.	5 cents per mile for each officer; 4 cents per mile for each enlisted man, authorized employé, or prisoner; 6 cents per mile for each horse, mule, or cattle, and 12 cents per 100 pounds per 100 miles for stores.
do	do	Nov. 15, 1888	do	do	Missouri River, between Sioux City, Iowa, and Bismarck, Dak.	5 cents per mile for each officer; 4 cents per mile for each enlisted man, authorized employé, or prisoner; 6 cents per mile for each horse, mule, or cattle, and 4½ cents per 100 pounds per 100 miles for stores.
Thomas A. Marlow	Apr. 30, 1888	June 30, 1889	do	do	Route No. 1, between Big Sandy Station, Mont., and Fort Maginnis, Mont., 96 miles.	94 cents per 100 pounds for the whole distance, and \$1.15 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
John W. Power	Apr. 4, 1888	do	do	do	Route No. 2, between Cascade, Mont., and Fort Shaw, Mont., 13 miles.	33 cents per 100 pounds for the whole distance, and \$1.48 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Ambrose Fitzgerald	do	do	do	do	Route No. 3, between Cinnabar, Mont., and Camp Sheridan, Wyo., 8 miles.	25 cents per 100 pounds for the whole distance.
Paul McCormick	Apr. 30, 1888	do	do	do	Route No. 4, between Custer Station, Mont., and Fort Custer, Mont., 30 miles.	33 cents per 100 pounds for the whole distance, and \$1 per 100 pounds for 100 miles between any and all other points within the boundaries of the route.
Albert W. Lavender	Apr. 4, 1888	do	do	do	Route No. 6, between Armour, Dak., and Fort Randall, Dak., 25 miles.	25 cents per 100 pounds for the whole distance.
James Kervin	do	do	do	do	Route No. 7, between Bismarck, Dak., and Fort Yates, Dak., 60 miles.	33 cents per 100 pounds for the whole distance, and \$1 per 100 pounds for 100 miles between any and all other points within the boundaries of the route.
Gustave Lindner and Robert J. Glen	do	do	do	do	Route No. 8, between Britton, Dak., and Fort Sisseton, Dak., 15 miles.	25 cents per 100 pounds for the whole distance, and \$1.30 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Peter W. McManus	do	do	do	do	Route No. 11, between Surgis, Dak., and Fort Meade, Dak., 3 miles.	65 cents per 100 pounds for the whole distance, and 7½ cents per 100 pounds for the whole distance between Mandan, Dak., and Fort Abraham, Lincoln, Dak.
Goodard Hofstrand & Bros.	do	do	do	do	Route No. 13, between Totten Station, Dak., and Fort Totten, Dak., 11 miles.	25 cents per 100 pounds for the whole distance, and \$1.75 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
do	do	do	do	do	do	5 cents per 100 pounds for the whole distance, and 80 cents per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
do	do	do	do	do	do	10 cents per 100 pounds for the whole distance.

E.—Abstract of contracts for wagon and water transportation entered into by the Quartermaster's Department, etc.—Continued.

Contracting officer.	Contractor.	Date of contract.	Date of expiration of contract.	Route of supply.	Rates.
Maj. A. F. Rockwell, C. Q. M., Department of Dakota, Saint Paul, Minn.	Paul McCormick	Apr. 30, 1888	June 30, 1889	Route No. 14, between Custer Station, Mont., and Fort Maginnis, Mont., 110 miles.	\$1.15 per 100 pounds for the whole distance, and \$1.10 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Maj. A. J. McGonnigle, C. Q. M., Department of Texas, San Antonio, Tex.	William Kelly	Apr. 25, 1887	June 30, 1888	Route No. 5 (water), between Fort Brown, Tex., and Fort Ringgold, Tex., by river 300 miles, by land 117 miles.	Officers and clerks, \$12 each; enlisted men, laundresses, and employees, excepting clerks, \$8 each; animals, \$12 each; freight per 100 pounds, 60 cents.
Maj. A. J. McGonnigle, C. Q. M., Department of Texas, San Antonio, Tex.	Adolph Baum	Apr. 25, 1888	June 30, 1889	Route No. 2, between Marfa, Tex., and Fort Davis, Tex., 22 miles.	1½ cents per 100 pounds for the whole distance, and \$1.01 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	John E. Mix	do	do	Route No. 3, between Pena Station, Tex., and Fort Ringgold, Tex., 70 miles.	75 cents per 100 pounds for the whole distance, and \$1 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	D. L. Bogard	do	do	Route No. 4, between Spofford Junction, Tex., and Fort Clarke, Tex., 10 miles.	12½ cents per 100 pounds for the whole distance.
Do	William Kelly	do	do	Route No. 5 (water), between Fort Brown, Tex., and Fort Ringgold, Tex., by river 300 miles, by land 117 miles.	Officers and clerks, \$12 each; enlisted men, laundresses, and employees, excepting clerks, \$8 each; animals, \$12 each; freight per 100 pounds, 60 cents.
Do	do	do	do	Hauling in and around Brownsville, Tex.	2½ cents per 100 pounds.
Do	Louis Scheibagen	do	do	Hauling in and around San Antonio, Tex.	Various.
Capt. J. C. Ayers (Ord.), A. A. Q. M., Benicia Arsenal, Cal.	M. Sweeney	Oct. 7, 1887	June 30, 1888	Hauling in and around Benicia Arsenal, Cal.	60 cents per load of 2,000 pounds.
Col. A. J. Perry, A. Q. M. G., U. S. A., C. Q. M., Department of California, San Francisco, Cal.	D. W. Earl	Apr. 9, 1888	June 30, 1889	Route No. 1, between Reno, Nev. and Fort Bidwell, Cal.	\$3.90 per 100 pounds for the whole distance, and \$2.25 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	E. Rheinhart	do	do	Route No. 2, between Winnemucca, Nev., and Fort McDaniel, Nev.	\$1.34 per 100 pounds for the whole distance, and \$1.65 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Lieut. Col. R. N. Batchelder, D. Q. M. G., U. S. A., in charge of depot, San Francisco, Cal.	Max Popper	June 14, 1888	do	Hauling in and around San Francisco, Cal.	Various.
Maj. A. S. Kimball, C. Q. M., Department of Arizona, Los Angeles, Cal.	Adolph Ramish and Charles F. Off.	Mar. 22, 1887	June 30, 1887	Hauling in and around Los Angeles, Cal.	60 cents per 2,000 pounds of stores or a fraction of 2,000 pounds; 90 cents per 1,000 pounds of lumber; \$1 for each vehicle; 40 cents for each animal; 30 cents per 100 pounds iron stakes; 65 cents per 1,000 laths; 35 cents per 1,000 shingles.

Do	E. H. Barnmore and Charles Elton.	June 22, 1887	June 30, 1888	Hauling in and around Los Angeles, Cal.	60 cents per 2,000 pounds of stores or a fraction of 2,000 pounds; \$1.25 per 1,000 feet of lumber; 75 cents for each vehicle; 50 cents for each animal; 15 cents per 100 pounds iron safes; 30 cents per 1,000 lbs., 25 cents per 1,000 shingles.
Lieut. Col. C. A. Reynolds, D. Q. M. G., U. S. A. C. Q. M., Department of the Columbia, Vancouver Barracks, Wash.	F. M. Gibbins	May 10, 1887	do	Route No. 1, between Sprague, Wash., and Fort Spokane, Wash.	50 cents per 100 pounds for the whole distance, and \$1 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	Jacob Kahn	do	do	Route No. 2, between Ashland, Oregon, and Fort Klamath, Oregon.	\$2.05 per 100 pounds for the whole distance, and \$2.30 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	Frank A. Nourse	do	do	Route No. 3, between Kuna, Idaho, and Boise Barracks, Idaho.	30 cents per 100 pounds for the whole distance, and \$2.70 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
Do	L. A. Loomis	Apr. 30, 1887	do	Route No. 4, from Astoria, Oregon, to Fort Canby, Wash. From Astoria, Oregon, to Fort Canby, touching at Fort Stevens going and returning.	\$24 per trip, seven round trips per week.
Maj. J. G. C. Lee, C. Q. M., Department of the Columbia, Vancouver Barracks, Wash.	J. Monaghan	Apr. 20, 1888	June 30, 1889	Route No. 1, between Sprague, Wash., and Fort Spokane, Wash.	\$7 per trip, seven round trips per week; \$6 per hour for extra detention at Fort Canby, Wash.; \$9 per hour for extra detention at Fort Stevens, Oregon; \$6 per hour for extra detention at Ilwaco, Wash.
Do	Jacob Kahn	do	do	Route No. 2, between Ashland, Oregon, and Fort Klamath, Oregon.	50 cents per 100 pounds for the whole distance, and \$1.50 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.
					\$2.49 per 100 pounds for the whole distance, and \$2.95 per 100 pounds per 100 miles between any and all other points within the boundaries of the route.

Report of Lieut. Col. B. C. Card, Deputy Quartermaster-General U. S. Army, of the operations of the claims branch during the fiscal year ended June 30, 1888.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., July 21, 1888.

GENERAL: I have the honor to submit the following report of the operations of the claims branch of this office for the fiscal year ending June 30, 1888:

The duties of the branch are as follows:

First. The investigation and adjudication of claims for quartermaster stores taken or furnished for the use of the Army during the war of the rebellion in States not in insurrection, as provided for in the act of July 4, 1864, section 300 A, Revised Statutes of the United States.

Second. The examination of certain miscellaneous claims, consisting of (1) cases based on certified accounts and known as "regular purchase vouchers," and (2) cases known as "soldiers' claims," being claims for private horses turned into regiments and appropriated to the public service, or for horses lost in service by officers or soldiers.

Most of these miscellaneous claims are referred to this office by the Third Auditor of the Treasury, and after receiving an administrative examination in this branch, are returned with an appropriate report in each case for settlement by the accounting officers of the Treasury under any law applicable.

The third section of the act of March 3, 1879, provides that all claims under the act of July 4, 1864, not presented and filed prior to the 1st day of January, 1880, shall be forever barred. Consequently, no new claims are now being received.

During the war, however, many claims were presented to certain military boards and commissions appointed by department and district commanders, and received a greater or less investigation, but no final and complete action.

The Quartermaster-General, in 1880, held that the presentation of claims before such boards and commissions was such a presentation and filing as to save them from being barred under the third section of the act of March 3, 1879. During the fiscal year last past, twelve of this class of claims have been called up in this office by the parties interested, and have been considered under the act of July 4, 1864.

In addition to the military board claims above referred to, there were a number of claims originally filed in this office (under act of July 4, 1864) during 1865 and 1866, which were returned prior to January 1, 1880, to the claimants or their attorneys for certain information. Twenty-four of this class of claims have been refiled in this office during the past fiscal year, and have been considered.

At the commencement of the fiscal year five agents were employed in the investigation of claims. This work having virtually been completed, the last of them was discharged on the 30th day of April, 1888, effecting a saving to the appropriation of \$4,668.82.

The clerical force at the commencement of the year consisted of one clerk of class 4, one clerk of class 3, four clerks of class 2, seven clerks of class 1, five copyists, and one clerk at \$1,000. At the close of the year there remained as employed on the work the following: Two clerks class 2, one clerk class 1, and one copyist.

The total number and amount of claims investigated and reported upon by the agents during the year, and the amounts recommended by them for allowance, are as follows :

Between what dates.	Number claims.	Amount claimed.	Amount recommended.
July 1, 1887, to April 30, 1888	78	\$24,254.35	\$6,400.64

The following statements show the number and amount of claims reported on hand July 1, 1887; number of claims presented to military boards and commissions and called up in the Quartermaster-General's Office during the last fiscal year; number of claims originally filed in 1865 and 1866, returned to claimants and attorneys and refiled during the last fiscal year; number of claims adjudicated by the Quartermaster-General; the amounts approved in full or in part; the amounts disallowed, and the number and the amount of those remaining on hand July 1, 1888 :

	No.	Amount.
On hand July 1, 1887	1,500	\$1,406,271.28
Military board claims called up and refiled claims	36	16,828.60
Total on hand and received during year	1,542	1,423,099.98

Upon the foregoing, action was taken as follows:

	No.	Amount.
Approved in whole or in part	289	\$1,423,099.98
Upon these claims (289) there was allowed \$52,973.25; and disallowed, \$127,634.20		180,607.45
Rejected	1,203	1,175,014.96
Total on which action was had	1,491	1,355,622.41
Remaining on hand July 1, 1888	51	67,477.57

On the claims (51) reported above as on hand, no final action has been taken, because in most of the cases neither the address of the claimant nor of any attorney in the case is known. But few of these claims are likely ever to be called up. A few, however, have been suspended at the request of the claimants to afford them an opportunity to furnish additional evidence.

The following statement shows the number and aggregate amount of claims presented under act of July 4, 1864, section 300 A, Revised Statutes of the United States, and action thereon since the passage of the act:

Year when presented.	Total received.		Approved.		Disallowed in claims on which allowances were made.	Wholly rejected.	
	No.	Amount.	No.	Amount.		No.	Amount.
1864-'65.....	2,890	\$1,687,858.25	783	\$273,860.30	\$56,736.17	1,404	\$1,023,420.87
1865-'66.....	13,219	7,731,253.83	2,230	877,151.76	280,008.30	7,419	4,792,006.79
1866-'67.....	7,068	3,307,903.24	1,197	479,640.84	263,470.61	3,102	1,634,068.81
1867-'68.....	2,778	1,602,870.74	401	248,124.71	157,449.77	603	387,704.80
1868-'69.....	847	670,542.82	173	106,406.78	47,645.51	222	142,006.45
1869-'70.....	637	610,707.22	119	66,681.45	24,596.98	113	196,598.18
1870-'71.....	590	1,800,004.58	47	26,216.71	47,765.42	60	132,148.17
1871-'72.....	1,124	1,483,314.18	665	367,102.72	410,234.05	274	396,100.75
1872-'73.....	1,963	2,024,725.16	642	296,775.90	318,436.52	325	443,689.75
1873-'74.....	2,606	3,144,572.34	81	495,324.38	537,250.47	528	694,152.19
1874-'75.....	2,044	2,345,315.22	403	188,581.63	352,882.33	871	1,314,460.29
1875-'76.....	1,098	1,204,834.38	302	186,229.50	237,210.51	1,254	1,995,767.89
1876-'77.....	836	679,202.04	460	155,272.52	293,796.44	642	1,352,159.88
1877-'78.....	1,408	902,490.99	967	255,084.99	337,791.09	1,345	1,741,197.86
1878-'79.....	1,640	961,420.00	635	121,568.26	199,517.37	1,032	1,077,212.02
1879-'80.....	12,757	7,527,051.56	594	157,650.70	156,814.10	921	738,420.46
1880-'81.....	44	37,290.08	1,149	227,680.39	344,898.93	1,995	1,885,173.82
1881-'82.....	124	142,916.05	1,389	296,346.39	349,691.41	1,630	1,302,700.82
1882-'83.....	71	44,388.91	1,879	312,151.70	573,383.13	3,114	2,606,673.38
1883-'84.....	113	90,867.82	1,033	198,315.00	334,942.74	2,935	2,413,295.28
1884-'85.....	142	82,334.87	1,064	235,647.14	353,587.09	2,269	1,507,979.12
1885-'86.....	3,822	1,350,023.21	1,316	235,243.32	409,382.32	2,451	517,190.72
1886-'87.....	436	357,521.04	968	144,923.76	611,432.28	2,925	2,811,471.57
1887-'88.....	36	16,828.60	289	52,973.25	127,634.20	1,202	1,175,014.96
Total.....	58,293	40,186,236.63	19,606	6,004,864.00	6,824,558.73	38,636	32,280,915.83
Less amount previously reported in column of disallowance on claims allowed in part, which was again included in column "Wholly rejected".....							4,991,580.10
							27,289,335.73

RECAPITULATION.

Number of claims presented from July 4, 1864, to June 30, 1888.....	58,293
Number of claims approved in whole or in part from July 4, 1864, to June 30, 1888.....	19,606
Number of claims disallowed from July 4, 1864, to June 30, 1888.....	38,636
Total acted upon.....	58,242
Number on hand July 1, 1888.....	51
Amount of 58,293 claims presented.....	\$40,186,236.63
Amount of 58,242 claims acted upon.....	40,118,759.06
Remaining claims (51).....	67,477.57

Many of the claims upon which action has been had in this office are being called up in the Court of Claims under the provisions of the act of March 3, 1883, commonly known as the Bowman act. And the Committees on Claims of the Senate and House of Representatives are making frequent calls for papers and information in regard to the claims. In meeting these calls from Congress and from the Court of Claims the time of the clerical force of this branch is fully occupied.

Very respectfully, your obedient servant,

B. C. CARD,
Deputy Quartermaster-General, U. S. Army.

The QUARTERMASTER-GENERAL, U. S. ARMY.

8.—*Report of Capt. John F. Rodgers, military store-keeper, U. S. Army, of the operations of the clothing-supply branch for the fiscal year ended June 30, 1888.*

SEPTEMBER 6, 1888.

GENERAL: I have the honor to submit the report of the operations of the clothing-supply branch of this office during the fiscal year ending June 30, 1888.

GENERAL DUTIES.

The work connected with this branch of the office has principally been confined to the purchase and manufacture of the clothing and equipage and clothing materials required for the Army of the United States, in strict conformity with existing laws and regulations; the distribution of the supplies to the various posts and recruiting rendezvous throughout the country; the issue and distribution, under the special orders of the honorable the Secretary of War, of the articles of clothing and equipage and such other stores as were required for the militia of the States and Territories from the general depots at Philadelphia, Pa., Jeffersonville, Ind., Saint Louis, Mo., and San Francisco, Cal., and from the military prison at Fort Leavenworth, Kans.

APPROPRIATION FOR AND EXPENDITURES ON ACCOUNT OF CLOTHING AND EQUIPAGE.

The appropriation by Congress for the purchase and manufacture of clothing, equipage, and materials, packing of same for transportation, pay of employes, and for all other incidental expenses connected with the supply of clothing and equipage to the Army, was \$1,150,000.

The amount of \$103,942.26 was placed to the credit of the appropriation from sales to officers of articles required for their personal use, and from amounts collected from the enlisted men on account of clothing drawn in excess of the annual money allowance. The credits to the appropriation from issues to the militia were \$112,638.00, making a total of \$1,366,580.26, of which the Department expended the sum of \$1,362,787.68, leaving \$3,792.58 in the Treasury of the United States on the 30th of June last. This amount will, however, be further drawn upon to pay for liabilities incurred prior to the close of the fiscal year.

The accompanying statement (C) shows, in a condensed form, the amounts received and remitted during the fiscal year, while Statement D shows in detail where the expenditures were made.

The remittances to the Philadelphia, Pa., depot, the principal purchasing and manufacturing depot of the Quartermaster's Department were	\$822,128.76
To Jeffersonville, Ind.	161,914.39
To San Francisco, Cal.	259,335.54
To St. Louis, Mo.	13,366.10
To the military prison at Fort Leavenworth, Kans.	104,499.31
To military divisions and departments.	1,543.58
Total.	1,362,787.68

PURCHASES FOR THE ARMY.

During the year the Quartermaster's Department has purchased by contract, after competition, as required by law, such articles of clothing, equipage, and materials, and manufactured such articles as were required for issue to the Army and to the militia of the States and Ter-

ritories. These purchases and manufactures were principally made at the general depots of the Quartermaster's Department at Philadelphia, Jeffersonville, and San Francisco, and at the military prison at Fort Leavenworth, Kans.

The articles have been up to the required standards and specifications, and no complaints have reached this office in regard to the quality of the supplies.

There were purchased by this Department during the past fiscal year the following principal articles of clothing, equipage, and materials:

Articles.	Quantity.	Articles.	Quantity.
Helmets	1,500	Mattresses	4,000
Cork helmets	2,000	Pillows	4,000
Forage caps	35,000	Pillow-cases	10,000
Fur caps	6,500	Bed-sheets	24,000
Campaign hats	17,000	Mosquito bars	8,500
Suspenders	8,000	Axes	4,000
Boots	7,500	Shovels	5,000
Shoes	5,000	Tents, all kinds	4,700
Wool stockings	100,000	Corn brooms	7,700
Cotton stockings	144,000	Scrubbing brushes	16,000
Berlin gloves	138,000	Linen collars	77,000
Wool mittens	2,500	D. B. cloth	16,000
Fur gauntlets	5,000	Tent duck	186,000
Leather gauntlets	13,000	Duck for canvas clothing	103,000
Arctic overshoes	3,600	Canvas flannel	112,000
Barrack shoes	24,900	D. B. blouse flannel	109,000
Wool blankets	10,000	Shirting flannel	60,000
Kersey	131,000	Knit shirts	63,000

A full and complete statement accompanies this report, marked A, while Statement B shows, in detail, the quantities purchased, of whom and how purchased, whether by contract or otherwise, and dates of contract and of purchase, also prices paid.

MANUFACTURES FOR THE ARMY.

As shown by Statement A, the principal articles of clothing and equipage manufactured by this Department during the fiscal year from materials purchased by the Quartermaster's Department were as follows:

Articles.	Quantity.	Articles.	Quantity.
Canvas caps	6,000	Drawers	55,000
Overcoats, kersey	9,000	Canvas mittens	2,000
Dress-coats	6,000	Gold-lace chevrons	3,400
Blouses	34,000	Cloth chevrons	8,400
Canvas coats	19,000	Mattress covers	1,800
Trousers, kersey	61,000	Pillow-cases	3,800
Trousers, canvas	23,000	Tents, all kinds	1,465
Flannel shirts	42,000	Corn brooms	21,000
Stable frocks	13,000	Barrack chairs	4,000
Overalls	19,000		

The garments are cut at the depots, and the work of sewing is given to tailors and sewing women, care being taken to give employment, as far as practicable, to the widows and relatives of the soldiers and sailors of the late civil war. The amounts paid to these employes for making the articles during the last year have been as follows:

At the Philadelphia depot	\$60,895.24
At the Jeffersonville depot	35,706.90
At the San Francisco depot	35,462.38
Total	132,064.52

In addition to the foregoing, there was also expended at the Philadelphia depot for labor employed in the manufacture of tents the sum of \$5,869.

ISSUES TO THE ARMY.

Statement A, accompanying this report, shows the total quantities of clothing, equipage, and materials issued by this department to the Army.

The following are the principal articles:

Articles.	Quantity.	Articles.	Quantity.
Helmets.....	4,800	Wool mittens.....pairs..	4,000
Cork helmets.....	3,900	Canvas mittens.....do...	4,000
Forage caps.....	27,000	Fur gauntlets.....do...	6,000
Fur caps.....	7,000	Leather gauntlets.....do...	7,000
Canvas caps.....	5,000	Arctic overshoes.....do...	3,800
Campaign hats.....	15,000	Barrack shoes.....do...	26,000
Overcoats, kersey.....	8,000	Wool blankets.....	13,000
Fur and canvas overcoats.....	1,300	Gold-lace chevrons.....pairs..	3,900
Dress-coats.....	5,000	Cloth chevrons.....do...	8,300
Blouses.....	30,000	Barrack bags.....	2,000
Canvas coats.....	10,000	Bunk bottoms.....	1,000
Stable frocks.....	7,000	Mattresses.....	1,800
Overalls.....pairs..	10,000	Mattress covers.....	3,800
Trousers, kersey.....do...	58,000	Pillows.....	2,400
Trousers, canvas.....do...	22,000	Pillow-cases.....	15,000
Suspenders.....do...	13,000	Bed-sheets.....	7,800
Flannel shirts.....	26,000	Mosquito bars.....	3,000
Boots.....pairs..	11,000	Axes.....	2,900
Shoes.....do...	51,000	Shovels.....	3,500
Knit shirts.....	44,000	Tents, all kinds.....	2,000
Drawers.....pairs..	50,000	Corn brooms.....	25,000
Wool stockings.....do...	72,000	Barrack chairs.....	4,200
Cotton stockings.....do...	98,000	Scrubbing brushes.....	10,000
Berlin gloves.....do...	118,000	Linen collars.....	97,000

ISSUES TO THE MILITIA OF THE STATES AND TERRITORIES.

The accompanying Statement I shows all the articles of clothing, equipage, and materials issued during the last fiscal year by the Quartermaster's Department to the Governors of the several States and Territories under the act of Congress amending section 1661 of the Revised Statutes, making an annual appropriation for arming and equipping the militia of the United States. The following are the principal articles that have been used:

Articles.	Quantity.	Articles.	Quantity.
Woolen blankets.....	872	S. B. Kersey.....yards..	4,365
Blouses.....	3,602	Leggings.....pairs..	1,148
Forage caps.....	4,063	Mess pans.....	1,071
Cap ornaments.....	2,489	Overcoats.....	1,292
Cap letters and numbers.....	4,659	Common tents, improved, with wall..	1,870
Chevrons of all kinds.....pairs..	1,507	Wall tents.....	586
D. B. cloth.....yards..	1,185½	Trousers.....pairs..	4,453
D. B. blouse flannel.....do...	800	Trousers' stripes.....do...	1,500
Helmets.....	960		

The total value of the clothing and equipage issued to the militia is \$112,638. This amount has been credited to the allotments for the several States and Territories, as follows:

State.	Amount.	State.	Amount.
Alabama	\$1,227.07	Missouri.....	\$0,205.18
Colorado	2,646.66	New Hampshire.....	1,284.00
Connecticut	4,069.00	New Jersey.....	1,863.15
Delaware.....	1,834.93	New York.....	328.86
Florida.....	1,492.73	North Carolina.....	3,142.06
Georgia.....	418.85	Ohio.....	3,854.45
Illinois.....	358.81	Pennsylvania.....	13,505.93
Indiana.....	8,293.03	South Carolina.....	1,783.96
Iowa.....	6,126.10	Tennessee.....	8,759.27
Kansas.....	8,287.64	West Virginia.....	5,202.44
Kentucky.....	10,181.28	Alaska.....	1,806.62
Maine.....	5,525.67	District of Columbia.....	3,831.68
Michigan.....	7,730.00		
Mississippi.....	3,274.03	Total.....	112,638.00

The cost of transporting these stores during the last fiscal year was paid from the appropriation for transportation of the Army.

Under a decision of the honorable the Secretary of War, of June 23 last, the cost of transportation, as well as the cost of packing, materials, and of labor, preparatory to forwarding supplies, will hereafter be also charged against the appropriation for arming and equipping the militia.

PURCHASES AND ISSUES TO INDIAN PRISONERS OF WAR.

Statement L (herewith) shows the articles of clothing and materials purchased expressly for Indian prisoners of war confined at Fort Pickens, Fla., and Mount Vernon Barracks, Alabama. The amount expended for this purpose was \$3,542.02. The appropriation for clothing and equipage has not been re-imbursed for the money value of the property. Statement K, accompanying this report, shows in detail all the articles of clothing, equipage, and materials that were issued to these Indians, consisting of articles drawn from stock of Army supplies as well as those specially purchased. The estimated value of all the property issued is \$4,157.29.

SALES AT AUCTION.

The amount of \$15,571.47 was realized at the general depots of the Quartermaster's Department from the sale of condemned articles of clothing, equipage, and materials, all of which was covered into the Treasury of the United States. The expenses of the sales were \$326.81.

The following were the depots at which the sales were made:

Depot.	Amount realized from sale.	Expenses of sale.
Philadelphia.....	\$9,827.84	\$178.40
Saint Louis.....	5,743.63	148.41

No sales were made at either the Jeffersonville, Ind., or San Francisco, Cal., depots.

THE MILITARY PRISON AT FORT LEAVENWORTH, KANS.

All the materials required in the manufacture of boots, shoes, barrack chairs, and corn brooms at the military prison, for the Quartermaster's Department, have been procured by the commandant of the prison under the authority of this Department. It is believed that all have been of good quality. The following are the principal articles:

Articles.	Quantity.	Cost.	Articles.	Quantity.	Cost.
Boots:			Shoes:		
Mounted, sewed . . . pairs.	6,056	\$23,339.13	Old style, brass-screwed, pairs	2,951	\$4,600.03
Mounted, brass-screwed, pairs	626	2,171.70	Tap-soling boots and shoes, pairs		868.12
Old style, brass-screwed, pairs	1,531	3,372.42	Corn brooms . . . number..	21,378	3,375.66
Shoes:			Barrack chairs . . . do . . .	4,116	6,793.76
Campaign, sewed . . . pairs.	23,077	58,665.97	Total		134,166.83
Post, sewed . . . do . . .	12,280	30,960.47			
Post, brass-screwed, pairs	8	19.57			

There were manufactured at the prison during the last fiscal year 8,183 pairs of boots of all kinds, 38,316 pairs of shoes of all kinds, 4,116 barrack chairs, and 21,378 corn brooms.

As heretofore stated, there was remitted to the prison during the last fiscal year \$104,499.31 from the appropriation for clothing and equipage.

The expenditures have been as follows:

Civilian labor employed in the supervision of the work	\$3,599.80
Royalty on machinery	1,440.92
Materials, machinery, etc	109,482.86
Total	114,523.58

The value of the materials on hand at the prison on the 30th of June, 1887, was \$35,506.76; while the materials remaining on hand on the 30th of June, 1888, represent a value of \$11,846.14. The money value of the prison labor performed for the Quartermaster's Department during the last fiscal year is reported to be \$19,643.25.

The average cost of the articles manufactured, including prison labor, has been as follows:

Articles.	Average cost.	Articles.	Average cost.
Boots:		Shoes—Continued.	\$2.52
Mounted, sewed per pair..	\$3.85	Post, sewed per pair..	2.45
Mounted, brass-screwed . . . do . . .	3.47	Post, brass-screwed . . . do . . .	1.56
Old-style, brass-screwed . . . do . . .	2.25	Old-style do . . .	.16
Shoes:		Corn brooms each..	1.65
Campaign, sewed do . . .	2.54	Barrack chairs do . . .	

The following are the principal articles of materials that have been purchased at the military prison at Fort Leavenworth, Kans., during the last fiscal year for the manufacture of articles of clothing and equipage:

Articles.	Quantity.	Articles.	Quantity.
Counter leather pounds..	1,200	Shoe laces pairs..	77,490
Sole leather do . . .	111,120	Shoe tongues do . . .	400
Wax upper leather square feet..	202,660	Broom corn pounds..	42,000
Pebble grain do . . .	42,000	Broom-handles	20,000
Welt leather pounds..	4,400	Hickory lumber feet..	30,000
Eyelets pounds..	1,000,000	Chair seats and thongs	4,000
Lacing studs	650,000		

The value of scrap leather sold at the prison during the year was \$3,074.95. This amount has, as required by law, been covered into the Treasury of the United States, credited to miscellaneous receipts. The commandant of the military prison reports that the total value of prison labor of all kinds performed for the Quartermaster's Department is \$31,716.47. Of this amount \$19,643.25 only are chargeable to clothing and equipage.

The value of quartermaster's stores issued to the prison during the fiscal year is \$26.33, while the value of the articles of clothing and equipage issued during the same period is \$2,397.69.

Fuller and more precise information regarding the transactions between the military prison and the Quartermaster's Department will be found in the accompanying Statements E to H, inclusive.

SUMMER CLOTHING.

The subject of providing articles of lighter clothing to the troops stationed in extremely hot regions has for some time been under consideration by this Department. How best to accomplish the object, with a due regard to economy and utility, has, it is thought, been solved.

A few garments made of cotton duck were sent for experimental issue in May, 1886, to troops in Texas. They gave such satisfaction that the Quartermaster-General, on the 18th of January last, recommended to the honorable the Secretary of War the manufacture of this class of clothing for all the troops stationed in the Department of Texas. The Adjutant-General of the Army on the 6th of February last advised this office that the Secretary of War had approved of such issue.

Samples of various styles and grades of coats, trousers, and overalls were manufactured and submitted to the commanding general of the Department of Texas, who selected such garments as in his opinion would meet the requirements of the service.

The articles consist of bleached cotton duck coats and trousers for non-commissioned officers, and the same garments, made of unbleached cotton duck, for the privates.

The cost of the garments is ascertained to be as follows:

Articles.	Cost.	Articles.	Cost.
For non-commissioned officers:		For privates:	
Coats each..	\$1. 09	Coats each..	\$0. 98
Trousers per pair..	. 83	Trousers per pair..	. 88
Overalls do....	. 43	Overalls do....	. 50

The issue of these garments is not intended to increase the cost of clothing the Army, as they are to be charged to the soldiers at cost price without increasing their annual money allowance. Illustrations of the garments are submitted herewith.

The clothing sent to Texas met with such favor that the Quartermaster-General recommended to the honorable the Secretary of War, on the 18th of June last, that authority be granted to manufacture a supply for the troops serving in the Departments of Arizona and the Missouri. This recommendation has been approved.

Purchase of the necessary materials is now being made. The manufacture has been commenced, and estimates have been called for from the commands who are to be supplied.

It is thought that the Department of the Missouri will be supplied during the present summer, but it is not likely that the posts in Arizona can be reached in time to be of use this year.

The introduction of this clothing will, it is thought, do away with the necessity of issuing trousers manufactured of kersey of lighter quality. These trousers, although on the clothing supply list, have never been called for to any extent, and might now well be disposed with

ALLOWANCE OF CLOTHING FOR THE ENLISTED MEN OF THE ARMY.

The following is a comparative statement obtained from the records of the office of the Paymaster-General of the Army, showing the amounts paid to discharged soldiers by clothing not drawn, and the amounts collected from the pay of the soldiers on account of clothing overdrawn during the last ten fiscal years:

Fiscal year ending June 30—	Not drawn.	Overdrawn.	Fiscal year ending June 30—	Not drawn	Overdrawn.
1878	\$244,844.19	\$119,161.20	1883	\$288,097.77	\$173,829.93
1879	360,287.71	130,002.98	1884	266,454.57	190,070.13
1880	397,393.04	121,617.21	1885	270,164.42	119,782.30
1881	468,703.96	145,290.58	1886	318,592.02	102,819.07
1882	308,693.66	179,359.78	1887	270,067.68	135,068.06

It will be seen that the savings of the enlisted men are greatly in excess of the amounts overdrawn, and in view of the recent additions to the uniform, such as fatigue and summer clothing, it is thought that the time has now arrived to revise the present allowance table.

Recommendation has recently been made to the honorable the Secretary of War to make the following changes, which, it is believed, will prove beneficial to the enlisted men:

(1) Reduce the allowance of three dress coats and twelve pairs trousers, during an enlistment of five years, to two coats and ten pairs of trousers. This will bring about a saving of nearly \$70,000 per annum.

(2) Increase the allowance of Berlin gloves of mounted men from one to four pairs per annum.

(3) Increase the allowance of cotton stockings from two to six pairs per annum.

(4) Add linen collars, barrack shoes, campaign hats and fatigue coats and trousers to the allowance table.

(5) Permit of the issue of two fatigue caps during the first year of enlistment, instead of one as heretofore.

These changes have been approved by the honorable the Secretary of War, and an order will soon be promulgated to the Army embodying the same. As a consequence it will be necessary to issue a new price-list of clothing and tables of allowance, to take effect on the 1st day of January next.

SILKEN COLORS AND STANDARDS.

To regulate the manner of making requisitions for regimental colors and standards, and there being no provision in the Army Regulations in regard to the disposition to be made of the colors when no longer fit for service, the Quartermaster-General recommended on the 23d of May last, to the honorable the Secretary of War, that whenever in the opinion

of commanding officers the condition of the colors and standards is such as to require the issue of new ones, a board of survey be appointed to report to the War Department their condition, and to make recommendation as to the necessity of furnishing others in place thereof, and that upon the receipt of new colors and standards commanding officers should forward those condemned, properly labeled, to the Adjutant-General of the Army, for preservation and safe-keeping.

These recommendations having been approved by the honorable the Secretary of War, the foregoing has been published to the Army in General Orders, No. 36, Headquarters of the Army, 1888.

BOOTS AND SHOES.

During the last fiscal year the stock of calf-skin upper leather remaining on hand at the Military Prison at Fort Leavenworth, Kans., on the 30th June, 1887, has been made up into post shoes. All have been issued to the Army on annual estimates for the new fiscal year, and the supply is now entirely exhausted. Machine-sewed boots and shoes, welt hand sewed, having wax uppers, are manufactured at the Military Prison, while those entirely-sewed by hand are being purchased by contract after advertisement.

Statement B shows the number of hand-sewed boots and shoes that have been purchased, viz, 7,545 pairs boots and 5,051 pairs campaign shoes.

CLOTHING MANUFACTURED ACCORDING TO SPECIAL MEASUREMENTS.

Inquiry having been made as to whether it would be practicable to successfully manufacture clothing for the enlisted men of the hospital corps according to special measurements, the Quartermaster-General decided that this office would authorize such special manufacture if accurate measures are sent with the requisitions, the extra cost of manufacture to be added to the issue price.

As a consequence the new price-list of clothing (General Orders, No. 57, Headquarters of the Army, 1888) contains a proviso that an additional charge of 75 cents be made for each dress-coat and 25 cents for each blouse or pair of trousers, if made according to special measure.

Steps have been taken to procure cards and directions for taking such measures, which, when completed, will be distributed to the Army.

TENTS AND OTHER EQUIPAGE FOR GETTYSBURGH REUNION.

In compliance with the joint resolution of Congress approved June 30, 1888, one thousand tents and other equipage, such as shovels, picks, axes, mess-pans, and camp-kettles, were sent to Gettysburgh, Pa., in care of one of the officers of this Department, for sheltering and use of the veteran organizations participating in the reunion of the survivors of the battle of Gettysburgh, on July 1, 2, and 3 last. To do this it became necessary to send nearly all the tents on hand and required for issue to the Army and to militia of the States, on annual estimates, and immediately upon their return to the depot at Philadelphia, from whence they were obtained, they were sent to the troops for whom they were intended.

LOAN OF TENTS.

Frequent applications for the loan of tents are made upon this office by veterans and Grand Army organizations. But these requests can not

be favorably entertained, for the reason that, to do so, the sanction of Congress would be necessary, as there is no law or regulation under which the public property intrusted to the care of officers of the Department could be diverted from its legitimate uses. Even if such authority were granted it would, in most cases, be impracticable to comply with such requests, as, under the limited appropriations available, only such number of tents as are actually needed for the Army and the militia can be provided for. Any authority for the loan of such property should be accompanied by an appropriation to procure it.

BARRACK CHAIRS.

Steps have been taken to adopt a different kind of barrack chair. The one now in use is not considered of sufficient strength to warrant its continuance.

The seats, made of raw hide, become warped after being exposed to wet. The cost of the chair has gradually increased. This is due to the advance in prices of the raw-hide seats and thongs. Those made during the last fiscal year cost \$1.65, and it is thought that a better article, combining cheapness with durability and serviceability, can be procured.

The commandant of the military prison at Fort Leavenworth, Kans., has been directed to procure and submit samples from which to select a suitable standard.

FORAGE-CAPS, HELMETS, AND CAMPAIGN HATS.

It having been observed that a gradual falling off in the quality of these articles of head gear had taken place, the Quartermaster General, at the last annual contract letting, directed that bids upon samples, to be submitted by bidders, should be invited. As a consequence, samples of superior quality than those prescribed by existing standards and specifications were received. Those most suitable for service, and whose cost was within the means of the Department, were selected and contracts awarded accordingly. New standards and specifications will hereafter be adopted from these deliveries.

SPECIFICATIONS FOR CLOTHING AND EQUIPAGE.

The following specifications have been amended and adopted by the Quartermaster-General during the last fiscal year:

Articles.	Date.	Articles.	Date.
Trousers stripes	Aug. 24, 1887	Trousers	Jan. 27, 1888
Blouses	Oct. 20, 1887	Drawers	Feb. 6, 1888
Canvas leggings	Jan. 10, 1888	Corset jeans	Feb. 23, 1888
Hospital flags	Jan. 23, 1888	Coat buttons, staff	Mar. 10, 1888
Helmets	Jan. 23, 1888	Metallic helmet and cap ornaments ..	Mar. 10, 1888
Gold-lace and cloth chevrons	Jan. 27, 1888	Shirting and cape lining flannel ...	Apr. 18, 1888
Dress coats	Jan. 27, 1888		

STANDARDS OF CLOTHING AND EQUIPAGE.

The following standards of clothing and equipage have, during the last fiscal year, been adopted and distributed to the general depots of the Quartermaster's Department, viz: Yellow facing cloth, blouse lining flannel, sky-blue kersey, fine; uniform coats, cavalry, blouses, trousers

stripes, hospital flags, chevrons (hospital corps), uniform coats (non-commissioned staff), muskrat caps, muskrat gauntlets, corset jeans, drawers, coat buttons (staff), metallic helmet and cap ornaments.

A book containing the illustrations of each article of clothing and equipage, and also the specifications for each article, is now in process of publication, and will, it is thought, soon be ready for issue to the officers of the Quartermaster's Department, for whom it is intended.

CLERICAL WORK.

The clerical work performed in the clothing-supply branch during the last fiscal year has been in excess of that performed during any of the previous fiscal years. Thirty-three hundred and thirty-three letters and requisitions were received and 5,585 letters have been written during the last fiscal year. The increase, as compared with previous fiscal years, has been 490 letters received and 349 letters written.

There are five clerks assigned to duty in this branch of the office.

In connection with this report are submitted the following tabular statements, A to M inclusive, from which more detailed information in regard to the operations performed by the clothing branch can be obtained, viz:

A.—Statement showing articles of clothing and equipage and materials on hand at the issuing depots of the Quartermaster's Department June 30, 1887; the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Army, and the quantities remaining in depot June 30, 1888.

B.—Detailed statement of the articles of clothing, equipage, and materials purchased by the Quartermaster's Department and paid for from the appropriation for clothing and equipage during the fiscal year ending June 30, 1888.

C.—Statement of amounts received and remitted by the Quartermaster's Department on account of clothing and equipage during the fiscal year ending June 30, 1888.

D.—Statement showing remittances on account of clothing and equipage during the fiscal year ending June 30, 1888.

E.—Statement showing articles of clothing and equipage manufactured at the military prison, Fort Leavenworth, Kans., for the Quartermaster's Department during the fiscal year ending June 30, 1888; also cost of materials, labor, etc.

F.—Statement showing value of labor performed for the Quartermaster's Department by the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

G.—Statement showing articles of clothing and equipage issued to the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

H.—Statement showing articles of Quartermaster's stores issued to the military prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

I.—Statement showing articles of clothing, equipage, and materials issued to the militia of the States and Territories under the act of Congress amending section 1661 of the Revised Statutes during the fiscal year ending June 30, 1888; also money value of same, which has been placed to the credit of the appropriation for clothing and equipage.

K.—Statement showing articles of clothing, equipage, and quartermaster's stores issued to Indian prisoners during the fiscal year ending June 30, 1888.

L.—Statement showing number and cost of articles and materials purchased for issue to Indian prisoners during the fiscal year ending June 30, 1888.

M.—Statement showing average prices at which the various articles of clothing and equipage are charged to the Army of the United States from July 1, 1888, to June 30, 1889.

Very respectfully, your obedient servant,

JOHN F. RODGERS,
Captain and Military Store-keeper, U. S. Army.

The QUARTERMASTER-GENERAL U. S. ARMY.

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department June 30, 1887, the quantities purchased, manufactured, received from posts and depots, taken up, sold, transferred to general depots, expended, issued to the Militia and the Army, and the quantities remaining in depot June 30, 1888.

Articles.	On hand June 30, 1887.	Purchased.	Manufactured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Transferred to general depots.	Expended.	Issued to the militia.	Issued to the Army.	Total issued.	Remaining on hand June 30, 1888.
Helmets:														
Trimmed and untrimmed number.	10,052	1,530		4,751	343		16,676	116	3,638	2	960	4,845	9,561	7,115
Cork.....do.	7,534	2,000		2,836	502		12,872	227	1,561		190	3,994	5,975	6,897
Helmet hair plumes.....do.	8,510	1,508		1,725	196		11,939	144	1,250	1		1,888	3,283	8,656
Helmet cords and bands.....do.	8,445			2,505	194		11,544	106	2,000			1,959	4,000	7,478
Helmet top bases.....do.	44,387			3,940	250		48,537	3	3,400	2	100	4,848	8,353	40,184
Helmet plume sockets.....do.	16,121			1,750	177		18,048	17	1,450	1		2,178	3,646	14,402
Helmet plume sockets, top pieces.....do.	4				25		29	29					20	
Helmet epaulettes.....do.	27,803			2,800	115		30,784	17	2,500	1	161	3,180	5,859	24,926
Helmet eagles.....do.	43,559			5,025	429		49,013	68	4,125	2	100	5,558	9,851	39,162
Helmet scrolls and rings.....pairs.	39,101			3,700	386		43,187	221	2,200	2		3,276	5,690	37,488
Helmet side buttons.....number.	83,391	2,400		9,084	625		100,500	186	8,312	4		10,683	19,185	81,315
Helmet numbers.....do.	118,123			9,100	925		128,147	199	7,600		300	5,418	13,508	114,639
Helmet devices.....do.	6,650			538	564		11,102	196	631			3,150	3,877	7,225
Helmet chin straps.....do.		3,495			82		3,577							3,577
Forage caps.....do.	11,874	35,103		30,143	382		67,300	48	19,860	1	4,063	27,378	51,350	16,049
Fur caps.....do.	1,482	6,569		4,430	97		12,578	91	3,107			7,026	10,224	2,054
Carvascaps.....do.	484		6,089	4,300	135	2	11,010	5	4,300			5,262	9,567	1,443
Campaign hats.....do.	13,878	17,296		12,431	805		44,410	196	12,111			15,495	27,802	16,608
Campaign hats, cords, and tassels.....do.	32,853			11	278		33,144		11			2,380	2,391	30,753
Straw hats.....do.	106						104					100	100	
Felt hats.....do.		104					104					104	104	
Forage cap crossed cannon.....do.	7,969			600	57		8,621		300		50	1,881	2,231	6,394
Forage cap crossed sabres.....do.	12,105			300	60		12,465	2			40	6,422	6,461	6,001
Forage cap crossed rifles.....do.	17,670				699		18,369				2,439	6,087	7,526	10,843
Forage cap castles.....do.	941				2		943	4				130	134	780
Forage cap shells and flames.....do.	512			75	14		601	4	75			220	290	302
Forage cap crescents.....do.	271			75	10		356		25			38	63	203
Forage cap wreaths.....do.	880			490	148		2,014		382			443	835	1,209
Forage cap bugles.....do.	31,920				142		32,062	75				204	279	31,783
Forage cap numbers.....do.	108,165			11,800	4,883		124,848	206	7,000		2,364	11,599	21,769	163,084
Forage cap lures.....do.	200	1,000		150			1,350		21		1	98	747	603
Forage cap letters.....do.	163,776			8,600	6,978		179,354	513	7,100		2,295	14,488	24,396	151,958
Overcoats:														
Kersey, made.....do.	8,549		7,156	6,616	1,232		23,553	17	6,183		1,202	6,801	14,393	9,100
Kersey, unmade.....do.	776		2,649	1,759	297		5,481	8	1,759	158		1,830	3,755	1,726
Buffalo.....do.	1,737			1,149			2,886	4				1,273	1,802	1,084

Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles	On hand June 30, 1897.	Pur- chased.	Manu- fact- ured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pended.	Issued to the militia Army.	Total issued.	Remain- ing on hand June 30, 1898.
Overboats—Continued.													
Canvas, blanket-lined.....number..	1,031		175	368	103		1,677	2	368		128	496	1,179
Cape linings.....do.....			371	53	13		386		53		232	284	53
Uniform dress coats:													
Musicians', foot and mounted, made, number.....	536		326	223	49	1	1,190	188	201	4	6	638	563
Musicians', foot and mounted, un- made.....number.....	2		15		1		18			1	6	11	18
Privates, foot and mounted, made, number.....	7,629		3,668	2,523	629	7	14,456	2,610	2,058	31	463	8,081	6,213
Privates, foot and mounted, un- made.....number.....	1,043		2,244	991	105		4,383	1	988	22		1,847	2,853
Crescents.....do.....	25						33	24				24	1
Caps.....do.....	50						50						50
Shells and flames.....number.....	119					8	127	23				23	104
Blouses:													
Lined, make.....number.....	14,310		17,147	6,468	896	6	38,827	15	6,468	31	8,512	10,301	20,327
Lined, unmade.....do.....	698		16,853	9,683	172	1	27,317	7	9,667	56	93	14,397	12,500
Unlined, make.....do.....	282						282						3,300
Canvas, made.....do.....	20,373		19,496	8,102	240		48,213	6	17,601		10,747	28,254	19,859
Linen collars.....do.....	24,136	77,075		5,738			103,949	192	5,882		97,318	103,392	2,567
Sack coats.....do.....	2						2						2
Stable frocks.....do.....	3,200		13,322	2,785	239		19,606	10	2,785		7,033	9,828	9,778
Overalls:													
Mounted.....pairs.....	3,183		10,773	3,990	126		27,072	10	3,990		10,368	14,388	12,684
Engineers.....do.....	508			499			1,067		499			499	508
Trousers:													
Mounted, made.....do.....	22,225		12,219	7,305	5,319		47,068	82	5,610	1	150	18,315	28,763
Foot, made.....do.....	35,185		16,719	9,462	7,340		68,706	674	8,495	1	4,213	33,261	33,445
Mounted, unmade.....do.....	6,874		11,121	5,698	2,047		24,741	526	6,436	978	60	16,270	8,471
Foot, unmade.....do.....	5,983		20,794	7,749	2,822		37,448	498	10,463	1,304	30	20,100	8,348
Canvas, fatigue.....do.....	18,025	1	23,721	8,933	281		51,881	5	8,930		22,265	31,220	20,661
Linen.....do.....	1,070		477	10			1,537	8	10		60	601	20,668
Boys.....do.....		4					4				4		
Leggins.....do.....		5,008					5,008	1			1,148	3,177	682
Boys' suits.....number.....	200	150					350				350		
Men's suits.....do.....		134					134				134		
Suspenders.....pairs.....	23,796	8,170		14,341	530		40,837	50	13,560	48	13,077	26,693	20,144
Shirts:													
Flannel, gray.....number.....	3,768			190	303		4,270	51	109		391	3,810	454
Flannel, dark blue, made.....do.....	43,180		42,705	18,056	746		103,296	81	18,550		26,180	47,135	58,141

Flannel, dark-blue, unmade. do.	1,895	63,418	28,488	273	2,078	17	11	0	27	2,041
Knit under. do.	40,587	216	216	683	183,170	54	23,455	44,509	68,018	65,159
Knit under, children's. do.	276	276	276	276	276	276	276	276	276	276
Boys'. do.	82	82	82	82	82	82	82	82	82	82
Shirt waist, boys'. do.	200	200	200	200	200	200	200	200	200	200
Shawls. do.										
Drawers. do.										
Canton flannel. pairs	93,371	55,119	29,239	1,139	178,968	78	29,350	50,409	79,337	90,031
Assorted. do.		222						222	222	
Stockings: do.										
Woolen. do.	87,377	100,166	35,848	811	224,205	114	33,923	72,767	106,803	117,402
Cotton. do.	68,291	143,764	76,634	292	278,981	1,622	56,349	98,114	160,085	122,896
Assorted. do.	1,500	1,734			3,234			3,234	3,234	
Gloves, white Berlin. number.	52,667	276,144	129,276	2,338	465,563	1,189	105,920	237,102	344,503	121,060
Mittens: do.										
Woolen. pairs.	16,823	2,500	4,500	352	24,175	237	8,880	4,188	8,295	15,898
Fur. do.	2,368		2,245	76	8,715	7	1,406	4,421	6,834	2,881
Canvas. do.										
Gauntlets: do.	2,462	5,097	4,370	4	11,983	3	3,583	6,182	9,718	2,145
Fur. do.	15,398	13,267	7,498	15	36,178	31	6,994	7,068	14,733	21,445
Leather. do.										
Boots: do.	7,683	2,127	2,518	695	13,023	93	2,423	3,326	5,842	7,181
Brass-screwed. do.	5,025	7,545	9,033	748	28,407	36	7,862	8,267	16,109	12,236
Sewed. do.										
Shoes: do.	7,917	2,951	6,177	1,515	18,560	857	4,650	5,087	8,884	9,570
Brass-screwed. do.	9,349	12,288	3,912	8,812	26,361	2,545	2,711	18,405	24,279	2,082
Post. do.	7,312			8,997	10,909	727	2	2,477	3,206	7,703
Field. do.	87,251	5,051	90,069	145	93,863	4	27,997	28,688	63,709	41,884
Campaign. do.		23,077			1,757			1,756	1,757	
for Indiana. do.	746	1,011								
Overalls: do.	642				642					612
Buffalo. do.	5,212	3,864	3,883	104	12,383	11	2,855	8,873	6,739	5,644
Artic. do.	1,961	24,896	24	8	26,989	13	561	26,190	26,764	225
Barack shoes. do.										1
Snow-excluders. do.										
Blankets: do.										
Woolen. number.	25,067	10,465	11,819	153	47,004	203	9,949	18,687	25,190	21,814
Rubber. do.	26,951		1,000	93	28,044	431	1,000	1,483	8,015	25,029
Ponchos, rubber. do.	22,128		600	25	22,653	140	600	629	1,359	21,294
Chaqueros: do.										
Gold lace, all kinds. pairs.	2,524		13	472	6,333	20	11	8,918	8,971	2,568
Cloth, non-commissioned staff and first sergeants. pairs	2,044		947	492	5,762	72	766	1,830	2,814	2,938
Cloth, regimental quartermaster-sergeants. pairs.										
Cloth, regimental color-sergeants. pairs.	21				21					21
Cloth, sergeants. pairs.	101	65			166		56	8	81	85
Cloth, corporals. pairs.	2,125	3,630	1,503	484	7,752	125	949	8,240	4,959	2,793
Cloth, farriers and pioneers. do.	2,118	3,862	1,873	435	7,267	58	911	8,185	4,839	2,458
Cloth, service, peace and war. number.	311	87	90	10	2,501	12	53	75	140	361
Brassards. number.	584	162	115	27	881	742	4	6	748	113
	41	659	8		735			615	619	110

A.—Statement showing articles of clothing and equipment and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- factured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pended.	Issued to the militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1888.
Alpenettes and shoulder knots, num- ber.....	78	430		23			536		1		35	181	217	319
Signal corps devices.....number.....	111				224		335	1				4	320	320
Hospital corps devices.....do.....			300	6			306					165	165	141
Trooper stripes:														
Non-commissioned staff...pairs.....	333		866	178	104		1,481	2	295		28	895	1,220	251
Sergeants.....do.....	2,626		4,591	2,653	227		9,897	78	706		712	4,807	6,403	8,404
Corporals.....do.....	1,881		7,540	4,167	550		14,088	50	1,034		740	8,065	10,498	3,560
Officers.....do.....	83		831				1,003	919			26	12	937	49
Uniform dress-coat facings...acts.....	4,786		2,261	1,048	658	41	8,754	516	748	21	210	2,761	4,256	4,538
Bonnet trimmings.....do.....			1		1		1							
Trouser trimmings.....do.....			341				341	31			300	10	341	
Overcoat trimmings.....do.....			11				11					11	11	
Barrack bags.....number.....	5,655		366	1,291	49		7,351	6	1,000			2,054	3,009	4,291
Bunka, iron.....do.....	2,688				1,761		4,347	594		1		960	1,555	2,792
Bunk-slats.....do.....	1,413				32		1,444			788			1,787	657
Woven-wire bunk-bottoms...number.....	1,924				1,040		1,974	128				1,085	1,213	761
Iron bedsteads with woven-wire bunk- bottoms and mosquito-bar frames, number.....	720						720	7				517	524	196
Bed-casters.....acts.....	6						6					6	6	
Corner-clamps.....number.....	36						36					36	36	
Mattresses.....do.....	5,783	4,000		500	126		10,409	18			400	1,895	2,313	8,096
Mattress covers.....do.....	28,964		1,855	3,000	125	5	33,949	38	3,000			3,893	6,904	27,045
Pillows.....do.....	4,913	4,040		500	130		9,583	40		1	400	2,476	2,017	0,605
Pillow-cases.....do.....	1,003	9,987	3,818		220		15,028	83		9		15,417	15,509	0,119
Pillow-sacks.....do.....	3,101			1,337	2,368	15	6,811	222	768	4,512		540	6,072	719
Bed-sacks.....do.....	9,436			1,443	2,025	152	12,062	1,081	443	1,917		401	3,872	8,160
Bed-sheets.....do.....	19,176	24,250			538		43,954	63				7,864	7,927	36,027
Bed-sheets.....do.....	1,982	8,594		3,483	6	8	14,077	18	3,453			3,134	6,585	7,462
Mosquito bars.....do.....		325					325					325	325	
Mosquito head-nets.....do.....	880				4		884				13	13	13	971
Iron pots.....do.....		121					121					121	121	
Galvanized iron buckets.....do.....				790	75		865							
Camp bottles.....do.....	5,325						5,325	88	780		423	1,240	2,571	3,619
Mess-pans.....do.....	51,407			690	3,180		55,277	403	500		1,071	1,553	3,117	52,160
Axe.....do.....	2,300	4,024		2,443	70		8,852	6	2,443			7,086	5,590	3,262
Archives.....do.....	10,293	12,016		6,130	50	9	28,493		6,120	8	155	7,656	13,030	14,464
Archives.....do.....	935						935					20	20	729
Archives.....do.....	18,009			236	1,551		20,366	1,522				1,451	3,032	17,334
Hatchet-bolts.....do.....	13,378	6,000		200	2,112		21,690	3	200		147	2,451	2,807	16,853
Hatchet-slings.....do.....	951				68		1,019	100		64	147	2,451	2,807	963

Spades	14 774	500	210	618	16,103	200	677	1,033	15,070
Spade-helves	64		6	51	64		12	12	53
Spade-slings	58		3,337	55	11,270	8,272	6	36	79
Shovels	2,374	5,501			286		3,532	6,398	
Shovel handles	80				200		24	224	56
Pickaxes	9,008	5,008	635	546	10,189	600	1,075	1,814	8,375
Pickax-helves	6,469		1,948	628	14,051	1,900	28	2,828	9,670
Pickax-slings	73			39	112		19	4,381	93
Drums, complete	213		25	12	250	25	108	173	78
Drum-heads:									
Batter	1,291			69	1,880		251	273	1,107
Snare	2,374			43	2,416		118	130	2,286
Drum-slings	90		23	24	351		65	90	267
Drum-rod	209	210			810		87	77	233
Drum-books	160			11	1,709		40	1,549	160
Drumsticks	4,861			1,649	4,391			173	4,219
Drumstick carriages	2,873			30	2,486			93	2,833
Drum-cords	21		90	24	43			15	33
Drum-cases	8,943			71	4,013		42	74	8,939
Trumpets	813	1,025	855	13	1,700		16	81	851
Trumpet-crooks	169			7	1,159		525	1,169	67
Trumpets, extra mouth-pieces	64	150	50	17	327	880	2	283	79
Bugles	4		613	16	20	59	1	12	8
Bugle cords and tassels	2,221	75		33	2,943	538	80	535	1,768
Pipes	2,413			23	2,438		180	44	2,768
Music pouches	173			24	551		31	471	80
Books:									
Company clothing account	13			1	14		1	14	
Company descriptive	107			4	111			106	5
Company letters sent	897	200	80	2	679	80	1	224	453
Company letters sent, index	425	200	80	2	707	80		185	513
Company letters received	426	200	80	1	707	80	1	194	513
Company letters received, index	420	200	80	1	701	80	1	186	515
Company morning report	4				4			2	2
Company order	91	208	173	3	471	173	5	843	128
Post letter	134			5	184		184	184	
Post letter sent	119	50	24	183	183	24	2	108	85
Post letter sent, index	135	50	24	119	209	24	1	104	105
Post letter received	121	50	24	135	110	24	2	110	87
Post letter received, index	141	50	24	121	215	24	2	100	115
Post order	314		24	50	404	24	2	111	293
Regimental descriptive	246			16	246				246
Regimental general orders	39		10	1	50		26	32	18
Regimental index	10		13	3	13		6	6	7
Regimental letter	1			1	2		2	2	
Regimental letter sent	116	30	13	13	146	13	7	41	107
Regimental letter sent, index	128	20	12	23	160	13	7	41	119
Regimental letters received	96	20	15	15	131		7	26	105
Regimental letters received, index	122	20	12		154	12	7	39	115

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- factured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pend.	Issued to the militia Army.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1888.
Books.—Continued.														
Regimental orders.....number.....	52	20			1		73		10	6	7	14	37	36
Inspection.....do.....	29						29							29
Brigade letter.....do.....	184		126	124	2		430		126		1	191	318	178
Tents, conical wall.....do.....	113		8	87	10		188		6			60	66	122
Shibley.....do.....	211	150	38	180	29		608	6	175	3	78	173	435	173
Hospital.....do.....	603	600	375	542	48	2	2,200	15	568			469	1,062	598
Wall.....do.....	662			730	188		1,860		80	4	100		1,042	1,042
Common, improved.....do.....	300	4,000	1,032	516	29		6,266	64	1,016		1,870	1,035	3,984	2,282
Bell.....do.....	4			1			5		1				1	4
Shelter, halves.....do.....	46,220			3,000	449		49,669		3,001	501		5,619	9,121	40,548
Pyramid.....do.....	4						4							4
French, wall.....do.....	2						2							2
French, common.....do.....	2						2							2
Pattern.....do.....	3						3							3
Pattern, with tripod and poles.....do.....	1						1							1
Marquee.....do.....	3						3							3
Conical, wall model.....do.....	1						1							1
Felt.....do.....	3						3							3
Felt, hospital.....do.....	238	150	32	175	38		633	6	173		32	218	429	204
Felt, wall.....do.....	695	600	615	621	38		2,569	17	641		152	1,054	1,864	705
Felt, wall, French.....do.....	2						2							2
Felt, pattern.....do.....	2						2							2
Felt, pattern.....do.....	453			360	19		1,438	2	363			248	613	825
Poles, Shibley.....do.....	18,845				827		19,672		2	70		1,762	1,834	17,838
Poles, shelter.....do.....	1,446	300		40	245		2,031	12	176	668	64	305	1,225	1,806
Poles, hospital, upright.....do.....	1,402	150		20	105		1,677	6	92	775	32	149	1,054	623
Poles, hospital, ridge.....do.....	2,511	800		351	93		3,755	73	411		366	638	1,487	2,268
Poles, wall, ridge.....do.....	5,350			702	211		7,863	59	822		782	1,281	2,804	4,069
Poles, common, upright.....do.....	11,627	9,000		865	1,088		22,580	519	1,168	24	1,022	3,818	6,551	16,029
Poles, common, ridge.....do.....	6,839	4,500		481	433		12,253	248	634		511	1,949	3,342	8,911
Poles, bell.....do.....	6			1			7		2				2	5
Poles, pyramid.....do.....	4						4							4
Poles, pyramid.....do.....	195,057	194,476		91,275	9,312	148	490,274	20,779	97,710	53	56,420	98,409	273,371	216,903
Buttons.....do.....	180	400		170		100	750		100	100		180	340	410
Straps, wooden.....do.....	27,826						27,826						500	27,326
Straps, metal.....do.....	34,500						34,500					444	26,467	8,033
Rings.....do.....	7,943						8,343	10	100	134		15	259	8,084
Rings, Shibley.....do.....	23			100			123					41	41	82

Stoves, Sibley.....do.....	838	800	100	135	1,073	1	106	241	348	725
Stoves, pipe, Sibley.....joints	4,904	900	2,000	183	7,986	1	2,041	2,937	4,978	3,008
Stoves, pipe, elbows.....number	110	110	110	110	110	110	110	110	110	110
Trips, Sibley.....do.....	1,213	300	220	19	1,752	223	223	232	456	1,296
Chairs, Sibley.....do.....	1,269	75	50	50	1,310	923	50	47	1,154	1,105
Fole sockets.....do.....	44	75	72	72	191	50	50	52	1,155	30
Flags:										
Post.....do.....	135	200	174	28	537	24	70	175	291	246
Garrison.....do.....	114	114	114	114	114	114	114	114	114	90
Storm and recruiting.....do.....	454	250	312	63	1,079	68	185	430	753	326
Designating.....do.....	20	20	20	20	20	20	20	20	20	20
Post and field hospital.....do.....	121	7	7	1	129	1	1	2	8	126
General hospital.....do.....	23	5	5	5	28	28	28	28	28	28
Colors:										
National.....do.....	3	5	5	5	7	7	7	7	7	8
Regimental.....do.....	3	6	6	6	9	9	9	9	9	8
Camp.....do.....	121	3	3	3	171	9	4	4	4	13
Guidons.....do.....	4	68	13	46	75	8	65	10	158	14
Guidon cases.....do.....	8	10	4	4	14	7	3	5	61	6
Guidon ambulance.....do.....	4	2	2	2	17	1	8	1	7	1
Standard.....do.....	1	1	1	1	5	1	1	1	4	1
Standard poles.....do.....	1	16	1	1	17	1	4	1	6	12
Markers.....do.....	1	12	1	1	13	1	2	1	3	11
General guides.....do.....	13	18	1	1	15	1	17	1	15	15
Signal flags.....do.....	16	6	1	1	150	1	1	8	9	150
Color cords and tassels.....do.....	150	6	3	3	9	1	1	8	9	2
Color cases.....do.....	2	2	2	2	2	2	2	2	2	2
Color sashes.....do.....	2	2	2	2	2	2	2	2	2	2
Color belts.....do.....	27	21	16	16	43	1	1	1	4	39
Color belts and slings.....do.....	1,076	180	116	53	1,076	146	13	19	178	896
Color staffs.....do.....										
Halliards:										
Garrison and post.....do.....	406	180	116	53	754	32	40	184	279	475
Storm and recruiting.....do.....	2,258	1,000	18	10	2,248	2	2	20	22	2,226
Devices.....do.....	594	133	18	14	1,594	1	835	62	835	759
Stencils, complete in box.....sets	366	101	1	8	165	1	30	19	62	103
Stencils, plates.....number	1	1	1	1	370	1	2	19	52	318
Company marking stamps.....do.....	9,433	7,770	21,297	72	102	1	22,144	98	98	4
Brooms, corn.....do.....	5,050	10,707	5,726	67	27,046	60,100	5,600	25,343	47,985	12,115
Brushes, scrubbing.....do.....						27,046	5,600	10,506	16,387	11,259
Alphabets:										
One-inch.....sets	34	34	2	2	36	2	2	5	7	29
One-half inch.....do.....	26	26	1	1	27	1	1	1	2	25
Numbers:										
One-inch.....do.....	82	30	5	5	32	5	5	6	11	21
One-half inch.....do.....	30	30	1,012	63	5,411	7	1,084	1	8	43
Barrack chairs.....number	194	1,000	1,600	70	4,746	1,600	1,600	4,205	5,289	1,22
Card-holders.....do.....	2,010	90	90	66	90	1	1	2,407	4,007	739
Shoe files.....do.....	90	2	2	2	90	2	2	1	1	80
Wash-stands, camp.....do.....	2	2	2	2	2	2	2	1	1	2
Hand-tiers.....do.....			200	700	940	300	300	131	513	387

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- fact- ured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pend- ed.	Issued to the militia Army.	Total issued.	Remain- ing on hand June 30 1888.
Hand-litter-handles.....number.....	.....	.....	.....	.....	.....	94	94	.....	.....	94	.....	94	.....
Acid, oxalic.....pounds.....	20	80	.....	.....	.....	50	50	.....	.....	20	.....	20	80
Alpaca.....yards.....	62	.....	.....	62	.....	124	124	.....	.....	62	.....	124	.....
Ammonia.....gallons.....	.....	6	.....	.....	.....	6	6	.....	.....	1	.....	1	5
Anger bits.....number.....	12	.....	.....	.....	.....	12	12	.....	.....	.....	.....	.....	12
Awls:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Assorted.....do.....	125	144	.....	.....	.....	269	269	.....	.....	6	.....	6	263
Sewing.....do.....	1,839	8,486	.....	.....	.....	10,325	10,325	.....	.....	6,192	.....	6,192	4,143
Fricking.....do.....	100	.....	.....	.....	.....	100	100	.....	.....	100	.....	100	.....
Hafis.....do.....	831	288	.....	.....	.....	619	619	.....	.....	122	.....	122	497
Baling presses.....do.....	17	.....	.....	.....	.....	17	17	17	.....	.....	.....	.....	.....
Baling needles.....do.....	24	.....	.....	.....	.....	24	24	.....	.....	24	.....	24	.....
Band saws.....do.....	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Baskets.....do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Benizine.....gallons.....	3	5	.....	.....	.....	2	2	3	.....	.....	.....	.....	.....
Beeswax.....pounds.....	36	807	.....	.....	.....	843	843	.....	.....	801	.....	801	42
Bits, gimlet.....number.....	.....	8	.....	.....	.....	8	8	.....	.....	.....	.....	.....	8
Blades, cloth-cutting machine.....do.....	30	.....	.....	.....	.....	30	30	.....	.....	.....	.....	.....	30
Blank forms.....do.....	8,600	.....	.....	.....	.....	8,600	8,600	.....	.....	8,600	.....	8,600	1,000
Boards, pattern.....do.....	.....	442	.....	.....	.....	442	442	.....	.....	138	.....	138	804
Bolts, chair.....number.....	.....	224	.....	.....	.....	224	224	.....	.....	224	.....	224	.....
Bolts and nuts.....do.....	.....	1,430	.....	.....	.....	1,430	1,430	.....	.....	.....	.....	.....	920
Books:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Text.....do.....	20	.....	.....	.....	.....	20	20	.....	.....	.....	.....	.....	20
Ticket.....do.....	.....	5	.....	.....	.....	519	524	519	.....	.....	.....	619	5
Blank.....do.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Scientific.....do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boot crimping forms.....do.....	5	.....	.....	.....	.....	5	5	.....	.....	.....	.....	.....	5
Boot-ream rubbers.....do.....	1,236	.....	.....	.....	.....	1,236	1,236	.....	.....	142	.....	142	1,094
Boot trees, automatic.....do.....	2	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	2
Boot trees, feet for.....do.....	11	.....	.....	.....	.....	11	11	.....	.....	.....	.....	.....	11
Boxes:	480	.....	.....	.....	.....	480	480	.....	.....	.....	.....	.....	480
Pustboard.....do.....	.....	500	.....	.....	.....	.....	500	.....	.....	500	.....	500	.....
Packing.....do.....	407	900	.....	.....	.....	.....	1,303	.....	.....	1,303	.....	1,303	.....
Box bands.....do.....	.....	1,250	.....	.....	.....	1,250	1,250	.....	.....	.....	.....	.....	1,110
Brackets, iron.....pairs.....	.....	144	.....	.....	.....	144	144	.....	.....	72	.....	72	.....
Bricks, warped.....number.....	.....	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	72
Bricks, warped.....yards.....	4,872	.....	.....	.....	.....	.....	.....	827	.....	4,293	.....	5,377	8,656
Bristles, sewing.....pounds.....	.....	19	.....	.....	.....	61	18,833	.....	.....	15	.....	15	.....
Broom heads.....do.....	.....	42,000	.....	.....	.....	.....	42,000	.....	.....	42,000	.....	42,000	4
Broom handles.....number.....	.....	20,000	.....	.....	.....	.....	20,000	.....	.....	20,000	.....	20,000	.....
Broom twine.....pounds.....	102	380	.....	.....	.....	.....	402	.....	.....	821	.....	821	51

	60	740		800	799		799	1
Broom wire..... do.								1
Brushes:								2
Button..... number.	2			2				8
Cloth..... do.	12			12				100
Ink, flat..... do.	123			123				227
Ink, round..... do.	231			243				40
Bristle, round..... do.	4			6				6
Stencil..... do.	13			40				73
Dusting..... do.				6				32
Marking..... do.				73				47,170
Paint..... do.	8			34				63,100
Buckles..... do.	9,649			137,001				100,831
Buckles, shoe, automatic..... do.	63,100			63,100				44
Backram..... yards.	23			14				100
Burlap..... do.				11,261				2,766
Butchers' stools..... number.	1			1				1
Button gauge..... do.								
Buttons:								
Coal, large..... do.	24,480			730,290				111,704
Coal, small..... do.	42,236			538,720				40,890
Rubber, large..... gross.	83,648			1,232				1,063
Rubber, small..... number.	63,648			895,048				859,568
Shirt and fly..... do.	350,352			864				6,480
Suspender..... do.	130,596			1,632,096				1,128,810
Assorted..... do.	84			1,632,153				1,380,128
Overcoat..... gross.				42				301,968
Blouse..... do.				210				42
Brown lasting..... do.	44			79				156
Vegetable ivory..... do.				385				54
Calico..... yards.	7,000			12,097				41
Cases, glass and rosewood..... number.	3							338
Channel cement..... gallons.	1							69
Chair rungs..... number.	248			248				12,097
Chalk..... boxes.	4			4				19
Clamps..... number.	139			139				248
Clamps, hand-knife machine..... do.	24			24				4
Cloth beams..... do.	1			1				139
Cloth baling..... yards.	15,878			32,005				24
Cloth:								
Dark blue, 6-4..... do.	12,760			84				1
Fecing..... do.	4,615			36,842				16,609
Italian..... do.	2,871			5,837				28,870
Blanket..... do.	5,879			24				3,228
Cord, cotton..... pounds.	1,237							3,743
Crimping breaks..... number.	9			9				5,347
Crimp covers..... do.	769			769				1,210
Crimps beams..... do.	165			180				3
Cressets, or strip sets..... do.	34			34				39
Cutters..... do.	11			12				150
Cuttings, all kinds..... do.				76,454				31
Cutters schedules..... do.	399			2,356				32
								34,547
								2,000

• Cloth baling.

—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- factured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pend.	Issued to the militia Army.	Total issued.	Remain- ing on hand June 30, 1888.
Cutters' morning reports . . . number . . .	1,200	1,000					2,200	7		1,030		1,030	1,170
Dies, assorted . . . do . . .	466	23					489	700		2		700	35
Doeskin . . . yards . . .	130	605					735						230
Door lines . . . number . . .	250						250						77
Dressing shoe . . . gallons . . .	191	1					192			115		115	
Drilling . . . yards . . .	9,454	48,102		9,544		40,523	107,624	7	9,544	94,780		104,831	3,293
Drills, twist . . . number . . .	4	4					4						4
Duck:													
Cotton . . . yards . . .	25,526	186,246		105,011		1,012	318,695	35		204,519	10	204,564	114,131
White . . . do . . .	139,258	139,258		2,120		2,120	131,384		82,479	48,905		131,384	
Brown . . . do . . .	8,062	103,825		47,022		56,843	150,809		69,555	74,889		144,414	15,365
Lining . . . do . . .	284	2,700					2,700		2,244	2,244		2,244	456
Edge planes with pressers . . . number . . .	12						12			71		71	213
Edgeshaves . . . do . . .	12						12						13
Emery powder . . . pounds . . .	9	10					19			7		7	12
Epsom salts . . . do . . .	32	60					92			35		35	57
Ether . . . do . . .	1	1					1			1		1	
Eyelets . . . number . . .	162,500	1,000,000					1,162,500			784,000		784,000	378,500
Eyes . . . do . . .	73,033	77,443				39,385	149,860	60,810		114,290		184,130	5,730
Eyelet machines . . . do . . .	4						4						4
Eyelet hook machines . . . do . . .	1						1						1
Feather clusters . . . do . . .	5	2					7			2		2	5
Flannel:													
Canton . . . yards . . .	26,073	112,136		3,805		9,350	152,264	22	3,805	132,236	8,398	144,461	7,803
Cape lining . . . do . . .	3,893	11,338				64	15,257	26	63	11,573	40	11,770	3,511
Dark-blue blouse . . . do . . .	9,888	109,814		17,663	255	2,083	139,708	190	15,828	88,573	5,438	110,820	28,879
Dark-blue blouse lining . . . do . . .	1,940	53,084		11,834		5,587	72,464	102	15,287	50,381	1,333	67,105	6,359
Gray shirting . . . do . . .	1,336			1,917			1,293		5	97		1,016	1,118
Dark-blue shirting . . . do . . .	9,014	60,027		1,171	114	1,131	71,457	105		63,154	554	63,813	7,044
Crimson lining . . . do . . .	3						3						3
Red . . . do . . .	2,506	6,037					8,603				8,603	8,603	
Flat irons . . . number . . .	3						3	2				2	3
Figures, steel . . . sets . . .	6	2					8						8
Files for heeling machine . . . number . . .	0						0						0
Files, assorted . . . do . . .	43						48						48
Glue . . . pounds . . .	300						300					300	
Goose irons . . . number . . .	7						7						7
Goose-iron stands . . . do . . .	2						2						2
Gronneta, brass . . . do . . .	17,086	77,780					95,446			27,380		27,380	68,066
Gum camphor . . . pounds . . .	56						56						56
Gum tragacanth . . . do . . .	33	30					63			24		24	39

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- fact- ured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pend- ed.	Issued to the militia. Army.	Total issued.	Remain- ing on hand June 30, 1888.
Leather—Continued.													
Wax upper..... square feet.	40,648	204,760					245,408			179,544		179,544	65,864
Pebble grain..... do.	11,302	42,000					53,302			44,125		41,125	9,177
Welt..... pounds.	9,301	4,406					14,801			13,450		13,450	861
Calf..... do.	15,350	15,350					15,350			15,350		15,350	
Linen:													
Buff..... yards.	41						41			41		41	
White..... do.	658	1,221					1,879	3		686		701	1,178
Line:													
Tent..... pounds.	15,078	12,576					27,654	3		5,858	481	6,201	21,868
Gilling..... do.	282	1,513					1,795			1,038		1,038	767
Lumber:													
Hickory..... feet.		30,000					30,000			30,000		30,000	
Assorted..... do.		3,000					3,000			3,000		3,000	
Pine..... do.		61,000					61,000			61,000		61,000	
Poplar..... do.		3,000					3,000			3,000		3,000	
Machines:													
Band knife..... number.	3						3			78		78	3
Bevel, extra parts for..... do.	78						78						3
Burnishing..... do.	1	1					2						3
Button fastening..... do.	2						2						1
Channeler..... do.	1						1						1
Channeler, extra parts for..... do.	40	183					173			66		66	117
Cloth-cutting..... do.	1						1						1
Cloth-shrinking and finishing..... do.	2						2						2
Cloth measuring and examin- ing..... number.	2						2						2
Cloth-sponging..... do.	1						1						1
Cloth-testing..... do.	5						5	3				2	3
Feather-edge..... do.	1						1						1
Grommet-setting..... do.	1						1						1
Heel-ding..... do.	1						1						1
Heeling, extra parts for..... do.	78	24					102			78		78	24
Leveling..... do.	2						2						2
Measuring..... do.	4						4	4				4	10
National wax-thread..... do.	10						10						66
National wax-thread, extra parts for..... number.	100						100			24		24	219
Stitching, extra parts for..... do.	184	295					479	1		261		261	1
Rolling..... do.	2						2						

A.—Statement showing articles of clothing and equipment and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand June 30, 1887.	Pur- chased.	Manu- fact. ur'd.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pended.	Issued to the militia.	Issued to the Army.	Total issued.	Remain- ing on hand June 30, 1888.
Oil:														
Mineral.....pounds.	123	149					263			168			168	95
Neat's-foot.....gallons.		130					130			63			63	57
Sperm.....do.	15	35					40			5			5	35
Lard.....do.		35					35			13			13	22
Stones.....number.	58						58			3			3	55
Slips.....do.		12					12					25		12
Paint.....pounds.		23					23							12
Padlocks.....number.				12			12							12
Padding.....yards.	6,629	60,070		14,075		1,740	82,614	13	14,076	68,703			72,882	9,632
Palms.....number.	34						34	5		5			5	29
Paper:														
Pattern.....pounds.	104	100					204			33			33	171
Petroleum.....do.	7,250	25,661		10,465	25		43,410	27	6,719	28,718		1,570	37,634	6,376
Wrapping.....reams.	207	505					712			222		2	224	484
Wrapping.....quires.		280					280			140			140	140
Sand, molded.....rolls.	34						34			12			12	22
Sand.....do.	10						10			34			34	22
Tissue.....quires.	26	160		2			170		2	138			138	32
Tissue.....reams.	3	30					33			29			31	27
Patterns.....sets.							3							3
Peg-floats.....number.							3							3
Pieces.....do.	501	24					525	66					66	459
Planes.....do.		2					2							2
Plates, galvanized iron.....do.	26	200					200			200		2	200	26
Pliers.....do.	2						2							2
Pots, sealing.....pounds.		7					7			6			6	1
Pulley-blocks.....number.		2					2							2
Punches.....do.	29						29			1			1	28
Punches, eyelet, tips for.....do.		12					12			4			4	8
Barbido:														
Seals and thongs.....do.	274						274			274			274	
Seals.....do.		4,000					4,000			3,842		122	3,964	86
Thongs.....do.		4,000					4,000			3,842		139	3,981	19
Mail's.....do.	83						83	13						71
Rings, galvanized iron.....pounds.	547	1,800					2,347			744			744	1,603
Rivets, shoe-buckle.....gross.	783						783							783
Rops:														
Baling.....pounds.	1,205	3,006					4,211			2,821			2,821	1,390
Cotton.....do.	51	2,035			100		2,185			2,897		29	2,926	1,359

A.—Statement showing articles of clothing and equipage and material on hand at the issuing depots of the Quartermaster's Department, etc.—Continued.

Articles.	On hand Jan. 30, 1887.	Pur- chased.	Manu- factured.	Received from general depots.	Received from posts.	Gained.	Total received.	Sold.	Trans- ferred to general depots.	Ex- pended.	Issued to the militia. Army.	Total issued.	Remain- ing on hand June 30, 1887.
Stoves.....	1						1						1
Stoves, gas.....	2						2						2
Tables.....							28						28
Cutters'.....	28						12						12
Automatic boot-tree.....	12												
Tacks.....	898	124					930			373		373	538
Steel lasting.....	523	2,600					3,123			1,640		1,640	1,490
Swede lasting.....	973	24					997			39		39	1,958
Tacks.....													
Tags.....													
Shipping.....	3,500	16,000					19,500			15,100		15,100	4,400
Hook.....		6,000					6,000			2,000		2,000	2,000
Tape measures.....	30,048	37,884		5,000		7,023	79,935	128	5,000	59,349	92	64,567	13,588
Tailors' crayons.....	6						6						6
Thread.....	543	334					867			29		29	838
Machine.....	1,865	398		160			2,423			967		967	1,756
Cotton.....	62,725	50,805		45,624		24,649	183,803	5	49,824	101,030	3,267	148,176	35,677
Linen.....	2,847	2,377		340		1,216	6,780		500	3,367	1	3,858	2,922
D. B. and W. B.....	602						602	1		278		278	324
Metalin.....	60	1,558					1,618			1,182	3	1,186	432
Silk.....	240						240			126		126	114
Shoe, hand.....	545	448					993			889		889	94
Thimbles.....		24					24				24	24	
Toggles.....		37,800					37,800			29,710		29,710	8,090
Towels.....		12					12			12		12	
Tracks.....		1					1						1
Trucks, casters for.....		8					8						8
Turpentine.....		10					10			10		10	
Twine:													
Cotton.....	5,222	1,518					6,740			828		828	5,912
Heavy.....	1,588	400					1,988			662		662	1,326
Flax.....		128					128			70		70	58
Blocking.....	698	690					1,388			683		683	615
Hemp.....	299						299			79		79	220
Java.....	23	300					323			157		157	166
Types for marking linings.....		50					50						50
Vice patent.....		1					1						1
Wadding.....	7,457	8,040		13		96	13,606			12,232		12,245	1,361
Waste, cotton.....		1,260					1,260			13		13	278

B.—Detailed statement of articles of clothing, equipage, and materials purchased by the
during the fiscal year

PHILADELPHIA, PA.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Cloth, D. B. coat.....	San Francisco Pioneer Woolen Factory, San Francisco.	June 10, 1887	4,000 yards.....	\$8,100.00
Cloth, D. B. coat, fine	Henry Lewis, Philadelphia...	July 28, 1887	5,121½ yards.....	10,883.71
Do.....	B. Y. Pippey & Co., New York.	Oct. 4, 1887	311½ yards.....	1,214.85
Do.....	Henry Lewis, Philadelphia...	June 14, 1888	2,000 yards.....	4,500.00
Cloth facing.....	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	1,240½ yards.....	2,913.47
Do.....	do.....	Jan. 5, 1888	362½ yards.....	879.74
Cloth, Italian.....	Thos. G. Hood, Philadelphia...	June 3, 1887	657 yards.....	616.20
Do.....	do.....	June 18, 1888	500 yards.....	359.50
Kersey, S. B. heavy.....	Lewis Bros. & Co., Philadelphia.	May 27, 1887	60,110½ yards.....	94,089.40
Do.....	B. Y. Pippey & Co., New York.	June 13, 1888	27,000 yards.....	39,892.50
Kersey, S. B. fine.....	Henry Lewis, Philadelphia...	July 28, 1887	6,692½ yards.....	12,450.13
Do.....	do.....	June 14, 1888	3,000 yards.....	6,000.00
Flannel, D. B. blouse.....	B. Y. Pippey & Co., New York.	May 28, 1887	7,035 yards.....	2,199.45
Do.....	do.....	May 27, 1887	22,500 yards.....	6,975.00
Do.....	do.....	Mar. 27, 1888	10,000 yards.....	2,950.00
Do.....	do.....	June 13, 1888	5,000 yards.....	1,575.07
Flannel, Canton.....	T. A. Ashburner, Philadelphia.	May 27, 1887	35,365½ yards.....	2,910.00
Do.....	do.....	do.....	36,000 yards.....	3,049.20
Flannel, D. B. blouse, cloth finished.	Lewis Bros. & Co., Philadelphia.	do.....	15,000 yards.....	23,550.00
Do.....	B. Y. Pippey & Co., New York.	Sept. 3, 1887	8,000 yards.....	10,320.00
Do.....	do.....	Jan. 5, 1888	15,000 yards.....	17,400.00
Flannel, D. B. fine.....	San Francisco Pioneer Woolen Factory, San Francisco.	Oct. 3, 1887	3,000 yards.....	4,955.00
Do.....	do.....	June 14, 1888	4,000 yards.....	6,200.00
Flannel, D. B. shirting	Henry H. Tobey, New York...	June 10, 1887	13,276 yards.....	12,180.73
Do.....	do.....	do.....	44,000 yards.....	40,370.00
Do.....	B. Y. Pippey & Co., New York	June 13, 1888	11,000 yards.....	9,317.00
Flannel, cape lining.....	do.....	May 28, 1887	4,749½ yards.....	4,203.20
Do.....	do.....	Jan. 5, 1888	3,147½ yards.....	2,801.27
Flannel, overcoat body-lining.	do.....	May 28, 1887	4,251½ yards.....	4,549.37
Do.....	Henry T. Kent, Clifton Heights, Pa.	June 13, 1888	5,000 yards.....	5,200.00
Doeskin, sky-blue.....	J. Rodman Hicks, Philadelphia.	Sept. 30, 1887	487½ yards.....	1,730.63
Black silesia.....	James R. Michael, New York.	June 3, 1887	25,890½ yards.....	2,330.12
Do.....	Thos. G. Hood, Philadelphia...	June 18, 1888	4,000 yards.....	409.20
Canvas padding.....	T. A. Ashburner, Philadelphia.	May 27, 1887	20,859 yards.....	2,019.46
Do.....	Wm. P. West, Philadelphia...	July 15, 1887	1,980 yards.....	199.99
Do.....	Thos. G. Hood, Philadelphia...	June 18, 1888	5,000 yards.....	473.50
Black padding.....	John Welsh, Philadelphia...	June 4, 1887	17,060½ yards.....	1,252.24
Do.....	T. A. Ashburner, Philadelphia.	June 13, 1888	4,000 yards.....	297.20
Black wadding.....	Henry C. Harper, Philadelphia.	do.....	5,000 sheets.....	162.00
Jeans, corset.....	W. E. Goodman, Philadelphia.	May 27, 1887	10,000 yards.....	625.00
Do.....	John Welsh, Philadelphia...	June 4, 1887	600 yards.....	39.84
Do.....	Thos. G. Hood, Philadelphia...	Dec. 16, 1887	21,718½ yards.....	1,515.96
Do.....	Henry C. Harper, Philadelphia.	June 13, 1888	10,000 yards.....	672.00
Jeans, white cotton.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Cotton drilling.....	W. E. Goodman, Philadelphia.	May 27, 1887	27,302½ yards.....	1,720.06
Do.....	Henry C. Harper, Philadelphia.	June 13, 1888	10,000 yards.....	648.00
White linen.....	Wm. P. West, Philadelphia...	June 7, 1887	1,222 yards.....	508.85
Cotton duck, 12-ounce.....	Rowland A. Robbins, New York.	May 27, 1887	70,000 yards.....	13,258.00
Cotton duck, 10-ounce.....	James R. Michael, New York...	June 3, 1887	64,996 yards.....	10,457.85
Cotton duck, 8-ounce.....	do.....	do.....	9,998 yards.....	1,230.75

Quartermaster's Department, and paid from the appropriation for clothing and equipage, ending June 30, 1888.

PHILADELPHIA, PA.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
The Slater Woolen Company, Webster, Mass.	June 30, 1888	525 yards	1, 102. 50	4, 525 yards	\$9, 262. 50
				7, 433½ yards	16, 598. 56
John Welsh, Philadelphia.	June 29, 1888	2, 500 yards	1, 682. 50	1, 003 yards	3, 803. 21
				3, 957 yards	2, 658. 80
				87, 119½ yards	134, 881. 90
				9, 092½ yards	18, 490. 13
				44, 566 yards	13, 699. 45
				71, 365½ yards	5, 959. 80
				38, 090 yards	48, 270. 00
				7, 000 yards	11, 135. 00
				68, 276 yards	61, 867. 78
				7, 897 yards	7, 004. 57
				9, 251 yards	9, 749. 37
B. Y. Pippey & Co., New York.	May 16, 1888	176½ yards	460. 45	604½ yards	2, 131. 07
				29, 690½ yards	2, 739. 32
				27, 869 yards	2, 696. 44
				21, 060½ yards	1, 549. 44
John Wanamaker, Philadelphia.	Sept. 17, 1887	5, 040 sheets	138. 60	10, 040 sheets	300. 60
Hood, Bonbright & Co., Philadelphia.	Nov. 22, 1887	518½ yards	37. 83		
John Welsh, Philadelphia.	do	409 yards	31. 08		
				43, 246 yards	2, 921. 71
Hood, Bonbright & Co., Philadelphia.	Feb. 21, 1888	2, 008 yards	136. 95		
do.	Mar. 17, 1888	4, 105½ yards	301. 74	6, 113½ yards	438. 69
				37, 802½ yards	2, 368. 06
				1, 222 yards	508. 80
				70, 000 yards	13, 258. 00
				64, 996 yards	10, 457. 85
				9, 998 yards	1, 230. 75

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Cotton duck, brown, 6½ to 7 ounces.	T. A. Ashburner, Philadelphia.	May 27, 1887	64,999 yards	\$8,638.36
Do	do	July 7, 1887	13,000 yards	1,852.50
Do	do	July 16, 1887	4,014½ yards	592.16
Do	do	Nov. 26, 1887	5,500 yards	686.95
Do	do	do	19,500 yards	2,521.35
Cotton duck, brown, 10-ounce.	John Welsh, Philadelphia	June 4, 1887	3,278½ yards	455.73
Cotton duck, white, 6½ to 7-ounces.	T. A. Ashburner, Philadelphia.	May 27, 1887	20,632½ yards	2,566.65
Do	Augustus Thomas, Philadelphia.	Oct. 3, 1887	67,500 yards	7,688.25
Cotton duck, white, bleached.				
Do				
White Berlin gloves	B. Y. Pippey & Co., New York.	May 28, 1887	110,072 pairs	11,865.76
Blankets, woolen	do	do	4,225	18,083.00
Do	do	do	4,000	17,120.00
Blankets for lining caps	Augustus Thomas, Philadelphia.	May 27, 1887	250	660.00
Do	do	Oct. 27, 1887	250	787.50
Forage caps	M. L. Kottshofski, New York.	June 9, 1887	24,000	11,757.60
Do	Horstmann Bros. & Co., Philadelphia.	Oct. 1, 1887	10,000	4,833.33
Do	B. Y. Pippey & Co., New York.	June 13, 1888	10,000	5,600.00
Stockings, woolen.	A. H. & C. B. Alling, Birmingham, Conn.	May 27, 1887	75,156 pairs	10,477.58
Stockings, cotton	A. E. Karslsen, New York	May 27, 1887	49,819 pairs	4,478.63
Do	Jas. R. Michael, New York	Feb. 2, 1888	30,000 pairs	2,700.00
Do	Sullivan & Bro., Philadelphia.	Feb. 4, 1888	30,000 pairs	2,550.00
Suspenders	J. Arthur Adamson, Philadelphia.	June 13, 1887	8,170 pairs	1,348.05
Collars, linen	Moseley & Moody, New York.	Nov. 14, 1887	49,975	2,623.69
Do	T. A. Ashburner, Philadelphia.	June 13, 1888	10,000	489.00
Undershirts, knit	A. V. Morris & Sons, Amsterdam, N. Y.	June 8, 1887	45,000	22,275.00
Leggins, canvas	W. H. Wiley & Son, Hartford, Conn.	Aug. 25, 1887	5,003 pairs	2,531.50
Helmets, cork	J. H. McKenney & Co., New York.	June 10, 1887	2,000	1,690.00
Helmets, untrimmed	Raynold & Whitlock, New York.	June 6, 1887	1,519	1,860.77
Do				
Campaign hats, drab	Raynold & Whitlock, New York.	June 6, 1887	12,000	14,163.00
Do	do	July 6, 1887	5,000	5,900.00
Do	Benj. M. Whitlock, New York	June 13, 1888	5,000	7,703.00
Caps, musk-rat	Van Alstyne & Keck, Johnston, N. Y.	Oct. 31, 1887	2,500	2,450.00
Do	Lyon Bros., New York	Jan. 31, 1888	2,000	1,000.00
Do	do	June 13, 1888	5,000	6,403.00
Overshoes, arctic	Rich'd Levicks, Son & Co. Philadelphia.	May 27, 1887	3,000 pairs	8,401.00
Do	do	Oct. 31, 1887	600	1,690.00
Flags, post	Robt. C. Toy, Philadelphia	June 6, 1887	200	2,040.00
Flags, storm and recruiting.	Walter H. McDaniel, Lowell, Mass.	June 4, 1887	250	750.00
Flags, general hospital				
Do				
Flags, post and field hospital.				
Do				
Do				
Guidons, cavalry	C. A. Hart & Co., Philadelphia.	July 30, 1887	1	6.00
Do				
Do				
Do				
Do				

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purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				107,013½ yards.	\$14,291.32
				3,278½ yards.	455.73
Augustus Thomas, Philadelphia.	Feb. 21, 1888	22,000 yards.	\$2,505.80		
do.	Mar. 17, 1888	20,000 yards.	2,278.00	130,132½ yards.	15,038.70
T. A. Ashburner, Philadelphia.	Feb. 21, 1888	2,700 yards.	289.44		
do.	Mar. 17, 1888	5,700 yards.	655.50	8,400 yards.	944.94
				110,072 pairs.	11,805.76
				8,225	35,203.00
				500	1,447.50
Horstmann Bros. & Co., Philadelphia.	June 11, 1888	1,000	520.00		
				45,000	22,710.93
				75,155 pairs.	19,477.58
				109,818 pairs.	9,728.63
				8,170 pairs.	1,348.05
				59,975	3,112.6
				45,000	22,275.00
W. H. Wiley & Son, Hartford, Conn.	Sept. 30, 1887	5 pairs	8.55	5,008 pairs.	2,505.05
				2,000	1,690.00
Raymold & Whitlock, New York.	Feb. 20, 1888	1	1.48		
B. M. Whitlock, New York.	Mar. 8, 1888	1	1.23	1,521	1,863.48
				22,000	27,760.00
				9,500	10,750.00
				3,000 pairs.	10,080.00
				200	2,040.00
				250	750.00
Horstmann Bros. & Co., Philadelphia.	Nov. 7, 1887	4	27.60		
do.	June 13, 1888	1	6.00	5	33.60
Horstmann Bros. & Co., Philadelphia.	Nov. 7, 1887	5	9.75		
do.	Mar. 19, 1888	1	2.50		
do.	June 13, 1888	1	2.50	7	14.75
C. A. Hart & Co., Philadelphia.	Aug. 24, 1887	2	14.50		
do.	Sept. 17, 1887	1	7.20		
do.	Sept. 13, 1887	9	62.82		
do.	Sept. 16, 1887	1	6.98		
Horstmann Bros. & Co., Philadelphia.	Oct. 3, 1887	1	9.45		

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Guidons, cavalry				
Do.....				
Do.....				
Do.....				
Do.....				
Do.....				
Do.....				
Guidons, artillery	Horstmann Bros. & Co., Philadelphia.	July 28, 1887	1.....	\$12.00
Do.....				
Do.....				
Do.....				
Do.....				
Guidons, ambulance				
Do.....				
Do.....				
Bunting	Robert C. Toy, Philadelphia.	July 8, 1887	100 yards	16.00
Colors, regimental	C. A. Hart & Co., Philadelphia.	July 30, 1887	1.....	139.90
Do.....	do.....	do.....	1.....	145.00
Do.....	do.....	Feb. 1, 1888	4.....	604.00
Colors, National	do.....	July 30, 1887	1.....	59.00
Do.....	do.....	Feb. 1, 1888	8.....	221.25
Do.....	do.....	do.....	2.....	152.00
Cavalry standards	Horstmann, Bros. & Co., Philadelphia.	July 28, 1887	1.....	67.50
Markers and general guides.	C. A. Hart & Co., Philadelphia.	July 30, 1887	1 set.....	47.00
Do.....				
Do.....				
Cases for markers and general guides.				
Axes	Rowland A. Robbins, New York.	May 27, 1887	1,000.....	479.00
Do.....	do.....	do.....	1,500.....	718.50
Ax helves	do.....	do.....	4,000.....	568.00
Do.....	F. B. Annadown, Philadelphia.	May 31, 1887	5,000.....	608.50
Hatchet helves	Charles J. Field, Philadelphia.	June 6, 1887	1,000.....	28.00
Do.....	Valentine Stortz, New York.	June 7, 1887	4,000.....	116.00
Pickax helves	Paul J. Field, Philadelphia.	June 8, 1887	1,008.....	180.43
Do.....	do.....	do.....	4,000.....	716.00
Scrubbing brushes	Pickering & Colescott, Philadelphia.	June 7, 1887	2,997.....	398.60
Do.....	Rowland A. Robbins, New York.	May 27, 1887	10,000.....	1,344.00
Gilt buckles	James R. Michael, New York.	June 3, 1887	64,728.....	373.08
Do.....	Horstmann Bros. & Co., Philadelphia.	June 13, 1888	260 gross.....	180.00
White metal buckles	James R. Michael, New York.	June 3, 1887	1,600.....	9.22
Do.....				
Shovels, long handles....	Chas. J. Field, Philadelphia.	June 6, 1887	600.....	181.50
Do.....	do.....	do.....	2,400.....	782.40
Shovels, short handles....	do.....	do.....	400.....	121.00
Do.....	do.....	do.....	1,600.....	521.60
Spades.....	Maxwell, Rowland & Co. Philadelphia.	June 15, 1887	560.....	200.00
Buttons, suspender	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	4,300 gross.....	258.00
Do.....	do.....	July 16, 1887	120 gross.....	8.40
Do.....	Thomas G. Hood, Philadelphia.	Oct. 4, 1887	912 gross.....	56.64
Buttons, suspender, bone.	William E. Goodman, Philadelphia.	May 27, 1887	60 gross.....	7.50
Do.....				

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purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
C. A. Hart & Co., Philadelphia.	Oct. 5, 1887	1.....	\$7. 20	.....	.....
do	Oct. 20, 1887	1.....	7. 20	.....	.....
do	Oct. 23, 1887	4.....	27. 92	.....	.....
do	Nov. 7, 1887	1.....	6. 08	.....	.....
do	Nov. 22, 1887	12.....	77. 28	.....	.....
Horstmann Bros. & Co., Philadelphia.	Mar. 12, 1888	12.....	72. 00	.....	.....
C. A. Hart & Co., Philadelphia.	Mar. 21, 1888	2.....	15. 24	47.....	\$314. 77
Horstmann Bros. & Co., Philadelphia.	Oct. 3, 1887	1.....	12. 00	.....	.....
C. A. Hart & Co., Philadelphia.	Dec. 1, 1887	1.....	10. 87	.....	.....
do	Mar. 12, 1888	2.....	23. 90	.....	.....
do	May 18, 1888	3.....	84. 20	.....	.....
do	June 4, 1888	2.....	27. 00	9.....	107. 97
Horstmann Bros. & Co., Philadelphia.	Nov. 7, 1887	7.....	8. 23	.....	.....
do	Mar. 19, 1888	1.....	1. 75	.....	.....
do	June 13, 1888	2.....	3. 50	10.....	8. 47
.....	.....	.....	.....	100 yards.....	16. 00
.....
Horstmann Bros. & Co., Philadelphia.	Dec. 19, 1887	1.....	58. 00	6.....	978. 90
.....	.....	.....	.....	7.....	490. 25
.....	.....	.....	.....	1.....	67. 50
Horstmann Bros. & Co., Philadelphia.	Oct. 3, 1887	1.....	10. 00	.....	.....
do	Apr. 28, 1888	16.....	120. 80	.....	.....
C. A. Hart & Co., Philadelphia.	June 4, 1888	5.....	89. 50	28.....	217. 90
do	July 27, 1887	6.....	. 90	6.....	. 90
Charles J. Field, Philadelphia.	June 23, 1888	24.....	18. 00	.....	.....
.....	.....	.....	.....	2, 524.....	1, 215. 50
.....	.....	.....	.....	9, 000.....	1, 266. 50
.....	.....	.....	.....	5, 000.....	144. 00
.....	.....	.....	.....	5, 008.....	800. 43
.....
.....	.....	.....	.....	12, 997.....	1, 742. 80
.....
.....	.....	.....	.....	53, 528.....	553. 08
William E. Goodman, Philadelphia.	Mar. 17, 1888	44½ gross.....	46. 67	.....	.....
Harrington & Goodman, Philadelphia.	May 18, 1888	50 gross.....	52. 50	15, 052.....	108. 39
.....	.....	.....	.....	3, 000.....	963. 90
Maxwell, Rowland & Co., Philadelphia.	June 30, 1888	500.....	143. 75	2, 540.....	791. 35
.....	.....	.....	.....	500.....	200. 00
Hood, Bonbright & Co., Philadelphia.	July 22, 1887	300 gross.....	18. 75	.....	.....
.....	.....	.....	.....	5, 632 gross.....	341. 79
Hood, Bonbright & Co., Philadelphia.	Feb. 21, 1888	132 gross.....	15. 84	.....	.....
do	Mar. 17, 1888	451 gross.....	49. 08	648 gross.....	72. 87

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Buttons, rubber, large...	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	39 gross.....	\$46.02
Buttons, rubber, small...	Thomas G. Hood, Philadelphia.	June 3, 1887	252 gross.....	105.58
Buttons, rubber, shirt...	do.....	do.....	1,600 gross.....	478.40
Buttons, fly.....	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	4,300 gross.....	222.17
Buttons, fly, bone.....	James R. Michael, New York	June 3, 1887	48 gross.....	5.40
Do.....	do.....	do.....	do.....	do.....
Buttons, lasting.....	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	35 gross.....	10.50
Buttons, vegetable ivory.	Thos. G. Hood, Philadelphia.	July 16, 1887	120 gross.....	64.78
Button toggles.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Buttons, uniform coat, large.	Thos. G. Hood, Philadelphia.	June 3, 1887	1,801 gross.....	3,088.91
Do.....	Horstmann Bros. & Co., Philadelphia.	July 16, 1887	210 gross.....	420.00
Do.....	Thos. G. Hood, Philadelphia	do.....	210 gross.....	420.00
Do.....	Horstmann Bros. & Co., Philadelphia.	June 13, 1887	300 gross.....	510.00
Buttons, uniform coat, small.	do.....	June 2, 1887	1,600 gross.....	1,391.68
Do.....	do.....	July 16, 1887	780 gross.....	780.00
Do.....	Thos. G. Hood, Philadelphia.	do.....	419½ gross.....	419.83
Do.....	Horstmann Bros. & Co., Philadelphia.	June 13, 1888	125 gross.....	106.25
Buttons, uniform coat, large, staff.	Thos. G. Hood, Philadelphia.	Jan. 6, 1888	105 gross.....	287.70
Buttons, uniform coat, small, staff.	do.....	do.....	79 gross.....	107.81
Buttons, assorted.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Tape, white.....	J. A. Adamson, Philadelphia.	June 13, 1887	18,000 yards.....	56.25
Tape, brown.....	do.....	do.....	14,792 yards.....	46.23
Silk, black sewing.....	James R. Michael, New York	June 3, 1887	2,004 spools.....	106.88
Do.....	H. C. Harper, Philadelphia	June 8, 1887	5,000 spools.....	60.42
Do.....	Thos. G. Hood, Philadelphia.	Oct. 4, 1887	6,000 spools.....	60.00
Silk, green, sewing.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Silk twist, black.....	H. C. Harper, Philadelphia.	June 8, 1887	976 ounces.....	427.00
Silk chevron, black.....	Thos. G. Hood, Philadelphia.	Jan. 6, 1888	300 ounces.....	127.44
Silk chevron, white.....	H. C. Harper, Philadelphia	Jan. 7, 1888	148 ounces.....	66.60
Spool cotton, white.....	James R. Michael, New York	June 3, 1887	688 dozen.....	261.41
Do.....	do.....	Sept. 30, 1887	552 dozen.....	209.76
Spool cotton, black.....	H. C. Harper, Philadelphia	June 8, 1887	688 dozen.....	261.44
Do.....	do.....	July 6, 1887	2,060½ dozen.....	781.85
Spool cotton, assorted.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Thread, D. B., lap, No. 35.	William E. Goodman, Philadelphia.	May 27, 1887	352 pounds.....	274.56
Thread, D. B., lap, No. 70	Henry C. Harper, Philadelphia.	June 8, 1887	629 pounds.....	902.61
Thread, W. B., lap, No. 35	William E. Goodman, Philadelphia.	May 27, 1887	89 pounds.....	69.42
Thread, W. B., lap, No. 70.	Henry C. Harper, Philadelphia.	June 8, 1887	22 pounds.....	31.57
Thread, D. B., No. 30.....	S. Goodman, Philadelphia....	July 16, 1887	340 pounds.....	238.00
Helmet side buttons.....	do.....	do.....	do.....	do.....
Do.....	do.....	do.....	do.....	do.....
Helmet hair plumes, white.	Edward Eleke, New York....	May 31, 1887	700.....	231.00
Helmet hair plumes, yellow.	do.....	do.....	700.....	238.00

purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				39 gross.....	\$46.02
				252 gross.....	105.58
				1,600 gross.....	478.40
Hood, Bonbright & Co., Philadelphia.	July 22, 1887	500 gross.....	\$27.08	4,800 gross.....	249.25
do	Feb. 21, 1888	108 gross.....	10.53		
do	Mar. 17, 1888	131 gross.....	12.71	287 gross.....	28.64
				35 gross.....	10.50
Henry C. Harper, Philadelphia.	Mar. 19, 1888	275 gross.....	188.65	395 gross.....	253.43
William E. Goodman, Philadelphia.	Mar. 17, 1888	75 gross.....	11.25		
Horstmann Bros. & Co., Philadelphia.	Mar. 19, 1888	2,700.....	25.65	37,800.....	36.90
Hood, Bonbright & Co., Philadelphia.	Mar. 17, 1888	51 gross.....	103.53		
Horstmann Bros. & Co., Philadelphia.	Mar. 19, 1888	184 gross.....	360.64		
do	May 18, 1888	200 gross.....	389.00		
				2,956 gross.....	5,290.08
Horstmann Bros. & Co., Philadelphia.	May 18, 1888	75 gross.....			
				2,999½ gross.....	2,769.01
Hood, Bonbright & Co., Philadelphia.	Feb. 23, 1888	1 gross.....		106 gross.....	291.70
do	do	1 gross.....		80.....	109.81
H. C. Harper, Philadelphia.	May 23, 1888	225 dozen.....			
Hood, Bonbright & Co., Philadelphia.	do	402 dozen.....			
do	do	204 dozen.....		831 dozen.....	14.84
do	July 6, 1887	23 pieces.....		18,092 yards.....	56.73
				14,792 yards.....	46.23
				13,004 spools.....	236.30
Hood, Bonbright & Co., Philadelphia.	Feb. 6, 1888	300 spools.....			
do	do	100 spools.....			
Horstmann Bros. & Co., Philadelphia.	Mar. 12, 1888	216 spools.....		616 spools.....	20.70
				976 ounces.....	427.00
				300 ounces.....	127.44
				148 ounces.....	66.60
				1,240 dozen.....	471.20
				2,748½ dozen.....	1,043.29
Hood, Bonbright & Co., Philadelphia.	July 6, 1887	84 spools.....	3.15		
Henry C. Harper, Philadelphia.	May 23, 1888	1,652 spools.....	57.82	1,736 spools.....	60.97
Harrington & Goodman, Philadelphia.	May 18, 1888	150 pounds.....	117.00	502 pounds.....	391.56
				629 pounds.....	902.61
				89 pounds.....	69.42
William E. Goodman, Philadelphia.	Mar. 17, 1888	115 pounds.....	166.75	137 pounds.....	108.32
Horstmann Bros. & Co., Philadelphia.	Oct. 8, 1887	600 pairs.....	36.00	340 pounds.....	238.00
do	Dec. 24, 1887	1,200.....	36.00	1,800 pairs.....	72.00
				700.....	231.00
				700.....	238.00

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Helmet hair plumes, scarlet.				
Helmet castles	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	150	\$6.00
Helmet cords and bands.	do	do	150	184.00
Helmet chin-straps				
Geneva crosses				
Do				
Cap wreaths				
Do				
Grommets, brass, No. 2	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	50 gross	30.00
Grommets, brass, No. 3	do	do	400 gross	304.00
Grommets, brass, No. 4	Paul J. Field, Philadelphia.	June 8, 1887	50 gross	47.00
Grommets, brass, No. 5	Rowland A. Robbins, New York.	May 27, 1887	40 gross	94.50
Galvanized iron rings	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	1,800 pounds	252.00
Do	do	do	400 pounds	60.00
Galvanized iron spindles				
Mosquito bars	James R. Michael, New York.	June 3, 1887	2,000	1,560.00
Do	do	do	6,000	4,680.00
Mosquito head nets				
Metal tent slips, No. 1	Isaac Townsend, Philadelphia	June 2, 1887	1,500	150.00
Metal tent slips, No. 2	do	do	3,000	240.00
Metal tent slips, No. 3	do	do	30,000	1,425.00
Tent poles, conical wall	Francis Cundey, Philadelphia	June 9, 1887	300	294.00
Tent poles, Sibley	C. H. Campbell, Jeffersonville, Ind.	do	104	102.96
Tent pins, common	Peter P. Renn, Saint Joseph's Hill, Ind.	do	20,000	158.00
Tent pins, wall, large	do	do	16,000	182.40
Tent-pole sockets				
Tent-pole tripods	Paul J. Field, Philadelphia.	June 8, 1887	300	672.00
Tent straps				
Tent stoves	Chas. J. Field, Philadelphia.	June 6, 1887	100	199.50
Tent stove pipe	do	do	300	37.67
Tents, hospital	Mair & Cranmer, Philadelphia.	June 24, 1887	150	8,221.50
do	do	do	600	16,734.00
Tents, common	do	do	4,000	46,540.00
Manilla line, 12 thread	Uhler & English, Philadelphia.	June 8, 1887	1,505 pounds	169.16
do	do	do	3,536 pounds	397.44
Manilla line, 6 thread	do	do	7,565 pounds	846.93
Rose cotton	Isaac Townsend, Philadelphia	June 2, 1887	2,024 pounds	308.26
Rope baling	Uhler & English, Philadelphia.	June 8, 1887	3,006 pounds	179.45
Line, gilling	Isaac Townsend, Philadelphia	June 2, 1887	752 pounds	125.96
do	Uhler & English, Philadelphia	June 8, 1887	761 pounds	127.47
Twine, blocking	Paul J. Field, Philadelphia.	do	600 pounds	71.40
Twine, cotton, white	T. A. Ashburner, Philadelphia	May 27, 1887	1,493 pounds	294.72
Twine, heavy	Isaac Townsend, Philadelphia	June 2, 1887	400 pounds	41.00
Braid, worsted, white	Horstmann Bros. & Co., Philadelphia.	do	1,000 yards	10.00
Braid, worsted, yellow				
Cord, mohair	do	June 2, 1887	1,500 yards	90.00
Leather, russet	Uhler & English, Philadelphia	June 8, 1887	151 square feet	27.18
Mattresses	Thos. G. Hood, Philadelphia	June 3, 1887	4,000	8,750.00
Pillows	do	do	4,040	1,204.95
Pillow-cases	do	do	9,888	1,095.68
Bed-sheets	F. B. Annadown, Philadelphia	May 31, 1887	30,000	8,700.00
Gold lace	H. V. Allen & Co., New York.	June 7, 1887	5,091½ yards	3,818.63
Linen webbing, 1-inch	J. Arthur Adamson, Philadelphia.	June 13, 1887	7,470 yards	522.90
Linen webbing, ½-inch	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	12,006½ yards	495.28
Trousers, cotton duck				

purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
Edward Eicke, New York.	June 26, 1888	108.....	\$37.80	108.....	\$37.80
				150.....	6.00
				150.....	184.00
Sherman and Delaplaine, Philadelphia.	Aug. 22, 1887	3,495.....	90.11	3,495.....	90.11
J. H. Wilson, Philadelphia.	Oct. 8, 1887	1,200.....	80.00		
Horstmann Bros. & Co., Philadelphia.	Dec. 23, 1887	2,000.....	40.00	3,200.....	70.00
do	Oct. 8, 1887	810.....	10.85		
J. H. Wilson, Philadelphia.	Jan. 27, 1888	200.....	9.50	510.....	20.35
				50 gross.....	30.00
				400 gross.....	304.00
				50 gross.....	47.00
				40 gross.....	94.80
J. B. Shannon & Sons, Philadelphia.	Dec. 22, 1887	200.....	4.92	2,200 pounds.....	312.00
				200.....	4.92
				8,000.....	6,240.00
S. Roebuck, New York.	July 21, 1887	325.....	113.75	325.....	113.75
				1,500.....	150.00
				8,000.....	240.00
				80,000.....	1,425.00
				800.....	204.00
				104.....	102.96
				20,000.....	158.00
				16,000.....	182.40
Paul J. Field, Philadelphia.	Aug. 18, 1887	75.....	21.75	75.....	21.75
Horstmann Bros. & Co. Philadelphia.	July 22, 1887	400.....	72.00	300.....	372.00
				400.....	72.00
				160.....	190.50
				800.....	87.87
				150.....	8,221.50
				600.....	16,734.00
				4,000.....	46,640.00
				1,505 pounds.....	169.16
				3,536 pounds.....	397.44
				7,535 pounds.....	846.93
				2,024 pounds.....	308.26
				3,006 pounds.....	179.45
				1,513 pounds.....	283.43
				600 pounds.....	71.40
				1,493 pounds.....	294.73
				400 pounds.....	41.00
John Wannamaker, Philadelphia.	Oct. 11, 1887	2,664 yards.....	27.25	3,664 yards.....	37.25
Horstmann Bros. & Co., Philadelphia.	Sept. 8, 1887	1,000 yards.....	10.00	1,000 yards.....	10.00
				1,500 yards.....	90.00
				151 square feet.....	27.18
				4,000.....	8,750.00
				4,040.....	1,208.95
				9,988.....	1,095.68
				80,000.....	8,708.00
				5,991½ yards.....	3,818.62
				7,470 yards.....	522.90
				12,000½ yards.....	495.28
John Wannamaker, Philadelphia.	Sept. 9, 1887	1 pair.....	1.25	1 pair.....	1.25

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Needles.....				
Clothing tickets.....				
Hooks and eyes, white.....	Thos. G. Hood, Philadelphia.	June 3, 1887	238 gross.....	\$120.75
Do.....				
Hooks and eyes, black.....	Horstmann Bros. & Co, Philadelphia.	June 2, 1887	50 gross.....	5.00
Hooks, black Japanned.....				
Do.....				
Drum slings.....				
Do.....				
Do.....				
Trumpets.....	Horstmann Bros. & Co., Philadelphia.	June 2, 1887	280.....	222.00
Do.....	Robt. C. Kretschmar, Philadelphia.	Aug. 15, 1887	500.....	775.00
Do.....	Rudolph Wurlitzer & Bro., Cincinnati, Ohio.	Oct. 3, 1887	25.....	42.50
Do.....	do.....	Feb. 1, 1888	300.....	510.00
Trumpet cords and tassels.....				
Trumpet crooks.....				
Pattern board.....				
Beeswax.....	John Welsh, Philadelphia.....	June 4, 1887	800 pounds.....	202.00
Shoe dressing.....				
Marking stamps.....				
Do.....				
Do.....				
Do.....				
Boots, hand sewed.....	Watson town Boot and Shoe Company, Watson town, Pa.	June 22, 1887	2,499 pairs.....	9,846.00
Do.....	Geo. F. Roedel, Philadelphia.	Dec. 5, 1887	5,046 pairs.....	19,326.18
Shoes, hand sewed, campaign.....	do.....	June 15, 1887	5,039 pairs.....	12,346.55
Do.....				
Ink, indelible, bottles.....				
Ink, indelible cans.....				
Paste, marking.....	Detre & Blackburn, Philadelphia.	May 23, 1887	200 boxes.....	47.00
Figures and spaces for marking stamps.....				
Do.....				
Muslin, paper.....				
Flag halliards.....	Paul J. Field, Philadelphia.....	June 8, 1887	179.....	243.44
Muslin, unbleached.....	John Welsh, Philadelphia.....	June 4, 1887	18,975 yards.....	964.63
Baling cloth.....	Thos. G. Hood, Philadelphia.....	June 3, 1887	12,484 yards.....	2,359.47
Burlap.....	do.....	do.....	4,931 yards.....	317.53
Wrapping paper.....	Bulkley, Raiguel & Co.....	June 6, 1887	404½ reams.....	1,779.68
Tissue paper.....	do.....	do.....	80 reams.....	16.50
Petroleum paper.....	Wm. A. Wheeler, New York.....	do.....	18,631 pounds.....	605.51
Do.....				
Tailor's crayons.....	William E. Goodman, Philadelphia.	May 27, 1887	300 boxes.....	90.00
Algulettes and shoulder knots.....	Edw. Eicke, New York.....	May 31, 1887	430.....	496.50
Music-pouches, large.....	H. V. Allen & Co., New York.....	June 7, 1887	75.....	468.75
Music-pouches, small.....	do.....	do.....	75.....	422.75
Lyres.....				

QUARTERMASTER-GENERAL.

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purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased,	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
Hood, Bonbright & Co., Philadelphia.	July 6, 1887	500.....	\$0.68	500.....	\$0.68
.....do.....	July 22, 1887	400,000.....	87.75	400,000.....	87.75
Horstmann Bros. & Co., Philadelphia.	Mar. 12, 1888	50 gross.....	18.50	.....	.....
Hood, Bonbright & Co., Philadelphia.	Apr. 28, 1888	50 gross.....	16.25	888 gross.....	165.50
Henry C. Harper, Philadelphia.	May 18, 1888	100 gross.....	10.24	150 gross.....	15.24
Horstmann Bros. & Co., Philadelphia.	Nov. 19, 1887	204 gross.....	26.18	.....	.....
Jas. R. Michael, New York	May 18, 1888	100 gross.....	8.33	304 gross.....	34.51
Horstmann Bros. & Co., Philadelphia.	Apr. 19, 1888	10.....	7.50	.....	.....
Rudolph Wurlitzer & Bro., Cincinnati, Ohio.	June 11, 1888	50.....	32.50	.....	.....
.....do.....	June 26, 1888	150.....	96.00	210.....	136.00
.....
.....
.....
Horstmann Bros. & Co., Philadelphia.	June 26, 1888	75.....	41.25	1,025.....	1,649.50
Robt. C. Kretschmar, Philadelphia.	July 22, 1887	150.....	54.00	75.....	41.25
Bulkley, Raignel & Co., Philadelphia.	Dec. 1, 1887	500 pounds.....	60.00	150.....	54.00
Laing & Maginnis, Philadelphia.	Dec. 2, 1887	1 gallon.....	.75	500 pounds.....	60.00
Peiffer Bros., Philadelphia	Sept. 17, 1887	2.....	8.00	1 gallon.....	.75
S. H. Quint & Son, Philadelphia.	Mar. 1, 1888	95.....	213.75	.....	.....
Peiffer Bros., Philadelphia.	Jan. 5, 1888	1.....	5.00	.....	.....
.....do.....	June 4, 1888	3.....	12.00	.....	.....
.....
L. M. Nute, Great Falls, N. H.	July 20, 1887	6 pairs.....	37.50	7,545 pairs.....	29,172.24
Geo. F. Roedel, Philadelphia.	.....do.....	6 pairs.....	14.70	.....	.....
S. H. Quint & Son, Philadelphia.	Sept. 5, 1887	500 bottles.....	60.00	5,051 pairs.....	12,397.75
Peiffer Bros., Philadelphia.	Apr. 10, 1888	5 quarts.....	10.00	500 bottles.....	60.00
.....do.....	Oct. 25, 1887	6.....	1.00	200 boxes.....	47.00
.....do.....	Feb. 6, 1888	4.....	1.00	.....	.....
John Wanamaker, Philadelphia.	July 6, 1887	40 yards.....	2.00	10.....	2.00
Paul J. Field, Philadelphia	July 12, 1887	1.....	3.82	40 yards.....	2.00
Strawbridge & Clothier, Philadelphia.	May 28, 1888	500 yards.....	31.25	.....	.....
.....	.....	.....	.....	12,484 yards.....	2,359.47
.....	.....	.....	.....	4,931 yards.....	317.75
.....	.....	.....	.....	404 1/2 reams.....	1,779.58
.....	.....	.....	.....	30 reams.....	16.50
Bulkley, Raignel & Co., Philadelphia.	Feb. 6, 1888	1,000 pounds.....	87.50	.....	.....
Wm. A. Wheeler, New York.	Mar. 5, 1888	6,030 pounds.....	211.05	25,661 pounds.....	854.06
.....	.....	.....	.....	300 boxes.....	90.00
.....
.....	.....	.....	.....	430.....	498.50
Horstmann Bros. & Co., Philadelphia.	June 29, 1888	8.....	50.00	83.....	518.75
J. H. Wilson, Philadelphia.	May 21, 1887	1,000.....	22.50	75.....	423.75
.....	.....	.....	.....	1,000.....	22.50

REPORT OF THE SECRETARY OF WAR.

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.[illegible]

QUARTERMASTER-GENERAL.

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purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				1,000	\$75.00
				5,000	4.75
John Wanamaker, Philadelphia.	Oct. 24, 1887	5,000	\$10.00	5,000	10.00
Paul J. Field, Philadelphia	Aug. 18, 1887	1,000	12.00	1,000	12.00
Wire Web Bed Company, New Britain, Conn.	Nov. 25, 1887	12	1.28	12	1.28
				800 pounds	135.20
				367 pounds	5.50
				576	7.52
Chas. J. Field, Philadelphia	Apr. 16, 1888	2 pairs	17.60	2 pairs	17.60
Paul J. Field, Philadelphia	July 6, 1887	20 pairs	4.80	20 pairs	4.80
Henry Schmidt, Philadelphia.	Mar. 21, 1888	500	58.75	500	58.75
				20	
				20	
				20	
				30	
				20	
				200	
				200	
				200	
				50	
				50	
				50	
				50	
				1,274.00	
				200	
				200	
				200	
				50	
				50	
				50	
				50	
Horstmann Bros. & Co., Philadelphia.	Feb. 1, 1888	1	31.00	1	31.00
Dunlap & Clarke, Philadelphia.	May 19, 1888	5	25.00	5	25.00
do	June 23, 1888	1	9.50	1	9.50
				3 gross	7.02
Paul J. Field, Philadelphia.	July 29, 1887	2	3.98	2	3.98
Hood, Bonbright & Co., Philadelphia.	Aug. 1, 1887	24 .....	.96	24 .....	.96
French, Richards & Co., Philadelphia.	Apr. 18, 1888	1,550 pounds	124.00	1,550 pounds	124.00
J. B. Shannon & Sons, Philadelphia.	Nov. 7, 1887	200	17.60	200	17.60
Charles J. Field, Philadelphia.	May 3, 1888	5 gallons	7.00	5 gallons	7.00
French, Richards & Co., Philadelphia.	do	130 pounds	11.70	130 pounds	11.70
Hood, Bonbright & Co., Philadelphia.	July 6, 1887	42 pairs	43.65		
Graff, Son & Co., Philadelphia.	Nov. 9, 1887	16 pairs	15.20		
do	Dec. 28, 1887	50 pairs	50.00		
do	Apr. 4, 1888	16 pairs	16.00		
George F. Roedel, Philadelphia.	May 16, 1888	523 pairs	512.54	647 pairs	636.79
Graff, Son & Co., Philadelphia.	July 8, 1887	16 pairs	14.40		
do	do	4 pairs	2.00		
do	Apr. 4, 1888	2 pairs	2.00		
do	May 16, 1888	195 pairs	68.25		
do	do	17 pairs	16.15		
do	do	114 pairs	65.60		

REPORT OF THE SECRETARY OF WAR.

B.—Detailed statement of articles of clothing, equipage, and materials

PHILADELPHIA, PA.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Shoes, children's.....				
Do				
Shawls, women's....				
Do				
Do				
Calico				
Do				
Do				
Coats and trousers, men's.				
Coats and trousers, boys'.				
Do				
Do				
Trousers, boys'				
Hats, boys'				
Do				
Do				
Stockings, womens'				
Do				
Do				
Stockings, childrens'				
Do				
Do				
Boys' knit drawers				
Girls' muslin drawers				
White shirts				
Boys' shirt waists				
Childrens' knit under-shirts.				
Red flannel				
Galvanized iron buckets.				

SAN FRANCISCO, CAL.

Ammonia				
Buckles, trouser	Thos. G. Hood, Philadelphia.	June 10, 1887	16,80c	\$120.62
Buttons, rubber, large...	Horstmann Bros., Philadelphia.	do	200 gross	116.00
Buttons, rubber, small...	do	do	1,000 gross	48.00
Buttons, suspender...	do	do	1,500 gross	120.00
Buttons, fly	do	do	1,200 gross	75.00
Braid, worsted	do	do	2,000 yards	22.50
Books, record				
Do				
Boxes, packing, large				
Boxes, packing, small				
Brushes, marking				
Cloth, d. b., standard	San Francisco Pioneer Woolen Factory, San Francisco.	June 10, 1887	2,400 yards	4,806.00
Cloth, d. b., fine quality ..	do	do	522½ yards	1,384.95
Do				

QUARTERMASTER-GENERAL.

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purchased by the Quartermaster's Department, etc.—Continued.

PHILADELPHIA, PA.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
Graff, Son & Co., Philadelphia.	May 16, 1888	14 pairs.....	\$11.90		
do	do	2 pairs.....	2.00	364 pairs.....	\$202.20
Hood, Bonbright & Co., Philadelphia.	Nov. 10, 1887	22.....	18.70		
do	May 16, 1888	78.....	60.45		
Strawbridge & Clothier, Philadelphia.	do	100.....	118.00	200.....	197.15
Hood, Bonbright & Co., Philadelphia.	July 6, 1887	401 yards.....	17.00		
do	Apr. 5, 1888	153½ yards.....	6.92		
do	May 28, 1888	4,500 yards.....	230.62	5,054½ yards.....	254.54
Adams, McCall & Co., Philadelphia.	May 31, 1888	134 suits.....	318.25	134 suits.....	318.25
Jacob Reed's Sons, Philadelphia.	Nov. 10, 1887	3 suits.....	7.50		
Adams, McCall & Co., Philadelphia.	May 16, 1888	58 suits.....	122.96		
do	May 31, 1888	98 suits.....	181.30	159 suits.....	314.76
Jacob Reed's Sons, Philadelphia.	Apr. 5, 1888	4 pairs.....	3.00	4 pairs.....	3.00
C. H. Garden & Co, Philadelphia.	Dec. 29, 1887	50.....	18.75		
Jacob Reed's, Sons, Philadelphia.	Apr. 5, 1888	4.....	2.00		
do	May 16, 1888	50.....	20.00	104.....	40.75
Hood, Bonbright & Co., Philadelphia.	Nov. 10, 1887	44 pairs.....	3.30		
do	Apr. 5, 1888	48 pairs.....	4.40		
Henry C. Harper, Philadelphia.	May 16, 1888	936 pairs.....	60.35	1,028 pairs.....	68.05
Hood, Bonbright & Co., Philadelphia.	Nov. 10, 1887	8 pairs.....	.60		
do	Apr. 5, 1888	12 pairs.....	.90		
do	May 16, 1888	684 pairs.....	47.28	704 pairs.....	49.38
Henry C. Harper, Philadelphia.	do	123 pairs.....	20.76	123 pairs.....	20.76
do	do	99 pairs.....	14.85	99 pairs.....	14.85
do	do	276.....	131.79	276.....	131.79
Hood, Bonbright & Co., Philadelphia.	do	82.....	17.00	82.....	17.00
do	do	216.....	26.10	216.....	26.10
Henry C. Harper, Philadelphia.	May 28, 1888	6,100 yards.....	1,098.00	6,100 yards.....	1,098.00
Paul J. Field, Philadelphia.	May 31, 1888	124.....	35.58	124.....	35.5

SAN FRANCISCO, CAL.

J. J. Mack & Co., San Francisco.	Feb. 11, 1888	1 gallon.....	1.00	1 gallon.....	1 00
Simon Stein & Co., San Francisco.	Dec. 14, 1887	2,000.....	20.00	18,800.....	140.61
do				200 gross.....	110.00
do	June 17, 1888	80 gross.....	.70	1,050 gross.....	48.70
do	Dec. 14, 1887	100 gross.....	16.00	1,600 gross.....	130.00
do	do	70 gross.....	9.80	1,270 gross.....	81.80
The Bancroft Company, San Francisco.	Mar. 8, 1888	1.....	13.50	2,000 yards.....	22.50
do	do	3.....	21.00	4.....	34.50
Truckee Lumber Company, San Francisco.	Sept. 8, 1887	500.....	700.00		
do	do	400.....	500.00	900.....	1,200 00
Hawley Bros. Hardware Company.	Apr. 12, 1888	48.....	3.84	48.....	3.84
				2,400 yards.....	4,896.00
S. F. Pioneer Woolen Factory, San Francisco.	Oct. 31, 1887	2,000 yards.....	5,150.00		
do	Dec. 27, 1887	1,000 yards.....	2,497.50	3,522½ yards.....	9,032.45

REPORT OF THE SECRETARY OF WAR.

B.—Detailed statement of articles of clothing, equipage, and materials

SAN FRANCISCO, CAL.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Canvas, baling				
Casters, truck				
Drilling	Thos. G. Hood, Philadelphia.	June 10, 1887	20,000 yards.	\$1,686.00
Directory, City				
Axes	G. T. Hawley, San Francisco.	June 10, 1887	1,500	975.00
Ax helves	Rowland A. Robbins, New York.	do	3,000	607.50
Brooms	Zan & Plancich, San Francisco.	do	7,700	1,309.00
Brushes, scrubbing	Rowland A. Robbins, New York.	do	3,800	604.20
Flour				
Hatchet helves	Geo. T. Hawley, San Francisco	June 10, 1887	1,000	50.00
Ocher				
Tent pins, large	Enterprise Mill and Building Company, San Francisco.	June 10, 1887	10,000	487.50
Tent pins, small	John Wigmore, San Francisco	do	25,000	875.00
Tent pins, shelter				
Tent poles, wall	Enterprise Mill and Building Company, San Francisco.	June 10, 1887	200 sets	220.00
Tent poles, common	do	do	500 sets	750.00
Leather gauntlets	C. P. Bailey, San José, Cal.	do	10,000 pairs	9,787.48
Undershirts	B. Y. Pippey & Co., New York	do	13,998	8,538.78
Wadding	H. L. Simon, San Francisco.	do	1,000 sheets	35.00
Stockings, woolen	Pioneer Woolen Factory, San Francisco.	do	25,000 pairs	6,937.50
Stockings, cotton	B. Y. Pippey & Co., New York	do	17,500 pairs	1,907.50
Mosquito bars	James R. Michael, New York.	do	600	552.00
Berlin gloves	B. Y. Pippey & Co., New York	do	28,000 pairs	3,410.40
Linen thread, No. 80				
Linen thread, No. 30				
Shoe knives				
Wrapping paper				
Dies, steel				
Ether				
Flannel, blouse a. s.	San Francisco Pioneer Woolen Factory, San Francisco.	June 10, 1887	15,000 yards ..	20,025.00
Flannel, blouse, finequality	do	do	3,016½ yards ..	5,218.33
Flannel, blouse lining	B. Y. Pippey & Co., New York	do	11,834½ yards ..	4,260.51
Flannel, d. b. shirting	San Francisco Pioneer Woolen Factory, San Francisco.	do	16,020½ yards ..	15,860.04
Flannel, canton	Thos. G. Hood, Philadelphia.	do	40,217½ yards ..	4,295.20
Italian cloth	do	do	600 yards	414.00
Corset jeans	James R. Michael, New York.	do	2,000 yards	20.00
Kersey, d. b., a. s.	Lewis Bros., Philadelphia ..	do	32,999½ yards ..	56,099.78
Kersey, d. b., fine quality	B. Y. Pippey & Co., New York	do	3,019½ yards ..	7,366.66
Kersey, d. b., 18 ounce	San Francisco Pioneer Woolen Factory, San Francisco.	do	1,999½ yards ..	2,949.63
Lumber				
Do				
Muslin	Thos. G. Hood, Philadelphia	June 10, 1887	28,001 yards ..	3,239.22
Needles	Simon Stein & Co., San Francisco.	do	50,000	38.50
Needles, sail				
Padding, canvas	W. P. West, New York.	June 10, 1887	3,500 yards ..	393.75
Padding, black	Thos. G. Hood, Philadelphia	do	5,548½ yards ..	509.33
Potash, caustic				
Jack-plane				

purchased by the Quartermaster's Department, etc.—Continued.

SAN FRANCISCO, CAL.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
Amea & Detrick, San Francisco.	Sept. 6, 1887	500 yards	\$242.50	500 yards	\$242.50
Hawley Bros. Hardware Company.	Apr. 12, 1888	8	2.00	8	2.00
W. H. L. Curran, San Francisco.	Aug. 15, 1888	1	5.60	20,000 yards	1,686.00
				1	5.00
				1,500	975.00
				3,000	607.50
				7,700	1,309.00
				3,800	604.20
Hammer, Leest & Co., San Francisco.	Sept. 28, 1887	100 pounds	1.75	100 pounds	1.75
Whittier, Fuller & Co., San Francisco.	Sept. 28, 1887	100 pounds	4.00	1,000	50.09
				100 pounds	4.00
				35,000	1,362.50
Enterprise Mill and Building Co., San Francisco.	Feb. 11, 1888	308		308	15.40
				700 sets	970.00
F. G. Conklin, San Francisco.	Dec. 21, 1887	1,000 pairs	1,090.00	11,000 pairs	10,877.48
				13,988	8,538.78
				1,000 sheets	35.00
				25,000 pairs	6,937.50
				17,500 pairs	1,907.50
				600	552.00
				28,000 pairs	3,410.40
Simon Stein & Co., San Francisco.	Dec. 14, 1887	60 pounds	138.00	60 pounds	138.00
do	do	30 pounds	26.40	30 pounds	26.40
Hawley Bros. Hardware Company, San Francisco.	June 1, 1888	12	1.20	12	1.20
S. B. Leavitt & Co., San Francisco.	do	100 reams	625.00	100 reams	625.00
Frank E. Davis, San Francisco.	Apr. 14, 1888	2	15.00	2	15.00
J. J. Mack & Co., San Francisco.	Feb. 1, 1888	1 pound .....	.75	1 pound .....	.75
				15,000 yards	20,025.00
				3,016½ yards	5,218.33
				11,834½ yards	4,200.51
				16,020½ yards	15,860.04
				40,217½ yards	4,293.20
				600 yards	414.00
				2,000 yards	220.00
				32,999½ yards	50,009.78
				3,019½ yards	7,366.60
				1,990½ yards	2,949.63
Truckee Lumber Company, San Francisco.	Sept. 8, 1887	1,000 feet	27.50		
do	Mar. 21, 1888	1,000 feet	30.00	2,000 feet	57.50
				28,001 yards	3,230.22
				50,000	38.50
Hawley Bros. Hardware Company, San Francisco.	Apr. 12, 1888	36	1.80	36	1.80
				3,500 yards	393.75
Simon Stein & Co., San Francisco.	Mar. 21, 1888	2,000 yards	230.00	7,548½ yards	739.33
J. J. Mack & Co., San Francisco.	Feb. 1, 1888	2 pounds	1.00	2 pounds	1.00
Hawley Bros. Hardware Company, San Francisco.	Apr. 12, 1888	1	2.60	1	2.60

B.—Detailed statement of articles of clothing, equipage, and materials

SAN FRANCISCO, CAL.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Smooth plane				
Pulley-blocks				
Paper, pattern				
Cutter's reports				
Silesia	Simon Stein & Co., San Francisco.	June 10, 1887	6,600 yards	\$680. 00
Silk, sewing	J. R. Michael, New York	do	18 pounds	120. 60
Do	do	do	480 ounces	249. 60
Silk, chevron	do	do	20 pounds	131. 50
Stencils				
Scales, counter				
Saw, hand				
Screws				
Stoves, Sibley				
Stovepipe, Sibley				
Tent poles, Sibley	Enterprise Mill and Building Company, San Francisco.	June 10, 1887	50	37. 50
Tape	Thos. G. Hood, Philadelphia	do	5,000 yards	20. 14
Thread, linen	Jas. R. Michael, New York	do	525 pounds	815. 75
Thread, basting	do	do	100 dozen	19. 00
Towels				
Warehouse truck				
Twine, sewing				
Wire, strapping				
Steel die				
Lumber				
Mallet				
Clothing tickets				
Cutter's schedules				
Hook tags				
Gauntlets, leather				
Do				
Boxes, packing, large				
Do				
Boxes, packing, small				
Lumber				

JEFFERSONVILLE, IND.

Mosquito bars	James R. Michael, New York.	June 3, 1887	5,998	4, 678. 44
Axes	Rowland A. Robbins, New York.	May 27, 1887	1,500	718. 50
Ax-helves	F. B. Annadown, Philadelphia.	May 31, 1887	5,000	698. 50
Hatchet helves	Valentine Stortz, New York.	June 7, 1887	4,000	116. 00
Shovels, short handles	Charles J. Field, Philadelphia.	June 6, 1887	1,604	522. 90
Shovels, long handles	do	do	2,400	782. 40
Shovel-handles, short				
Shovel-handles, long				
Pickax-helves	Paul J. Field, Philadelphia.	June 8, 1887	4,000	716. 00
Scrubbing-brushes	Rowland A. Robbins, New York.	May 27, 1887	10,000	1, 344. 00
Sibley-test stove-pipe cl-bows				

purchased by the Quartermaster's Department, etc.—Continued.

SAN FRANCISCO, CAL.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
Hawley Bros. Hardware Company, San Francisco.	Apr. 12, 1888	1.....	\$2.25	1.....	\$2.25
do.....	do.....	2.....	6.00	2.....	6.00
The Bancroft Company, San Francisco.	do.....	100 pounds.....	12.50	100 pounds.....	12.50
do.....	do.....	1,000.....	4.75	1,000.....	4.75
do.....	do.....	6,800 yards.....		6,800 yards.....	680.00
do.....	do.....	18 pounds.....		18 pounds.....	120.60
do.....	do.....	480 ounces.....		480 ounces.....	249.60
do.....	do.....	20 pounds.....		20 pounds.....	131.50
G. M. Wood & Co., San Francisco.	Apr. 12, 1888	1.....	1.00	1.....	1.00
D. N. & C. A. Hawley, San Francisco.	Mar. 8, 1888	1.....	8.50	1.....	8.50
Hawley Bros. Hardware Company, San Francisco.	Apr. 12, 1888	1.....	1.25	1.....	1.25
Huntington, Hopkins & Co., San Francisco.	Sept. 28, 1887	100 gross.....	34.00	100 gross.....	31.00
W. W. Montague & Co., San Francisco.	do.....	200.....	468.00	200.....	468.00
do.....	do.....	600 joints.....	96.00	600 joints.....	96.00
do.....	do.....	50.....		50.....	87.50
do.....	do.....	5,000 yards.....		5,000 yards.....	20.14
do.....	do.....	525 pounds.....		525 pounds.....	815.75
do.....	do.....	100 dozen.....		100 dozen.....	19.00
Hawley Bros. Hardware Company, San Francisco.	Apr. 12, 1888	12.....	3.00	12.....	3.00
do.....	do.....	1.....	10.00	1.....	10.00
Ames & Detrick, San Francisco.	Sept. 26, 1887	25 pounds.....	8.75	25 pounds.....	8.75
Hawley Bros. Hardware Company, San Francisco.	Nov. 4, 1887	500 pounds.....	73.41	500 pounds.....	73.41
Frank A. Davis, San Francisco.	June 1, 1888	1.....	16.50	1.....	16.50
D. A. Macdonald, San Francisco.	Apr. 26, 1888	1,000 feet.....	27.50	1,000 feet.....	27.50
do.....	do.....	1.....	1.00	1.....	1.00
The Bancroft Company, San Francisco.	do.....	183,100.....	71.40	183,100.....	71.40
do.....	do.....	2,000.....	15.00	2,000.....	15.00
do.....	do.....	4,000.....	14.00	4,000.....	14.00
C. P. Bailey, San José, Cal.	May 10, 1888	3,100 pairs.....	3,283.00	{ 4,100 pairs.....	4,323.00
F. G. Conklin, San Francisco.	May 31, 1888	1,000 pairs.....	1,040.00		
Truckee Lumber Company, San Francisco.	Apr. 26, 1888	200.....	280.00	.....	.....
Hobbs, Hall & Co., San Francisco.	do.....	200.....	280.00	400.....	560.00
do.....	do.....	600.....	744.00	600.....	744.00
Truckee Lumber Company, San Francisco.	do.....	1,000 feet.....	27.50	1,000 feet.....	2,750.00

JEFFERSONVILLE, IND.

.....	.....	.....	5,998.....	4,078.44
.....	.....	.....	1,500.....	718.50
.....	.....	.....	5,600.....	698.50
.....	.....	.....	4,000.....	116.00
.....	.....	.....	1,604.....	522.90
.....	.....	.....	2,400.....	752.40
W. B. Belknap & Co., Louisville, Ky.	Feb. 3, 1888	100.....	\$25.00	25.00
do.....	do.....	100.....	20.00	20.00
do.....	do.....	.....	4,000.....	716.00
do.....	do.....	.....	10,000.....	1,344.00
The Corrugated Elbow Company, Cincinnati.	Jan. 13, 1888	110.....	28.60	28.60

B.—Detailed statement of articles of clothing, equipage, and materials

JEFFERSONVILLE, IND.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Wall-tent pins, large.....	Peter P. Renn, Saint Joseph's Hill, Ind.	June 9, 1887	16,140	\$184.00
Common tent pins.....	do	do	20,628	162.96
Crayons .....	.....	.....	.....	.....
Jute twine .....	.....	.....	.....	.....
Do .....	.....	.....	.....	.....
Brass seals .....	.....	.....	.....	.....
Blouse flannel	Lewis, Bros. & Co., Philadelphia.	May 27, 1887	15,000 yards	20,560.00
Do	B. Y. Pippey & Co. New York	Sept. 3, 1887	8,000 yards	10,320.00
Dark blue shirting flannel	Henry H. Tobey, New York.	June 10, 1887	44,000 yards	40,370.00
Blouse lining flannel.....	B. Y. Pippey & Co., New York	May 27, 1887	22,500 yards... ..	6,975.00
Do	do	June 10, 1887	10,000 yards	3,600.00
Canton flannel.....	T. A. Ashburner, Philadelphia.	May 27, 1887	36,533½ yards	3,096.10
Caustic potash .....	.....	.....	.....	.....
Pegging-awls .....	.....	.....	.....	.....
Printing-ink .....	.....	.....	.....	.....
Rubber hose.....	.....	.....	.....	.....

SAINT LOUIS, MO.

Ammonia.....	Meyer, Bros. & Co., Saint Louis.	June 8, 1888	5 gallons	2.75
Benzine, refined.....	do	do	5 gallons	1.25
Bits, gimlet	Simmons Hardware Company, Saint Louis.	do	8 .....	.15
Bolts	Valentine Fath, Saint Louis.	Jan. 21, 1888	2 gross	1.50
Do	do	June 22, 1888	500	2.52
Do	Simmons Hardware Company, Saint Louis.	June 30, 1888	5 gross	3.24
Brackets for bunk bottoms.	Valentine Fath, Saint Louis.	June 22, 1888	6 dozen	4.50
Do	do	June 30, 1888	6 dozen	4.00
Brushes, paint	F. Shapleigh, Saint Louis.	June 8, 1888	3 .....	.21
Do	Simmons Hardware Company, Saint Louis.	do	12	3.15
Do	Meyer Bros. & Co., Saint Louis.	do	9	1.43
Do	A. M. Nelson Paint Company, Saint Louis.	June 15, 1888	2 .....	.96
Camphor.....	Meyer Bros. & Co., Saint Louis.	June 8, 1888	50 pounds.....	14.50
Nail-pullers.....	F. Shapleigh, Saint Louis.	do	12	27.00
Nuts for bolts.....	Von der Au Bros., Saint Louis.	June 30, 1888	2 gross	1.20
Oil, lard.....	Meyer Bros. & Co., Saint Louis.	June 8, 1888	5 gallons	3.75
Paint	Wieder Paint Company, Saint Louis.	June 15, 1888	25 pounds.....	2.75
Pliers.....	Simmons Hardware Company, Saint Louis.	June 23, 1888	2	1.50
Screw-drivers.....	do	June 8, 1888	1 pair.....	.75
Seal, depot.....	Saint Louis Engraving Company, Saint Louis.	do	1	1.00
Shelter-tent pins	Francois Cundey, Saint Louis.	July 30, 1887	7,000	88.75
Springs, supporting.....	Valentine Fath, Saint Louis.	June 22, 1888	500	12.50
Stencils	Saint Louis Engraving Company, Saint Louis.	June 8, 1888	2	3.00
Tacks	Valentine Fath, Saint Louis.	Jan. 21, 1888	24 papers	1.20
Wire, coppered	do	do	25 pounds.....	1.62

purchased by the Quartermaster's Department, etc.—Continued.

JEFFERSONVILLE, IND.—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				16,140	\$184.00
				20,628	162.96
Von Borries & Co., Louisville, Ky.	June 30, 1888	12 boxes	\$3.60	12 boxes	3.60
The Otis Hidden Company, Louisville, Ky.	Aug. 18, 1887	100 pounds	9.50		
do	Oct. 28, 1887	300 pounds	23.50	400 pounds	38.00
R. C. Fowler, Louisville, Ky.	Feb. 2, 1888	2	1.75	2	1.75
				23,000 yards	30,870.00
				44,000 yards	40,370.00
B. Y. Pippey & Co., New York.	Feb. 23, 1888	1,371½ yards	425.09		
				33,871½ yards	11,000.09
				36,555½ yards	3,096.10
Arthur Peter & Co., Louisville, Ky.	Nov. 29, 1887	5 pounds	3.25	5 pounds	3.25
W. B. Balknap & Co., Louisville, Ky.	June 30, 1888	1 gross .....	.75	1 gross .....	.75
Robert Rowell, Louisville, Ky.	do	3 pounds	1.50	3 pounds	1.50
The Ahrens and Ott Manufacturing Company, Louisville, Ky.	do	5 feet	1.25	5 feet	1.25

SAINT LOUIS, MO.

				5 gallons	2.75
Weider Paint Company, Saint Louis, Mo.	Aug. 3, 1887	5 gallons	1.15	10 gallons	2.40
				3 .....	.15
				1,508	7.26
				12 dozen	8.50
				26	5.69
				50 pounds	14.50
				12	27.00
				2 gross	1.20
				5 gallons	8.75
				25 pounds	2.75
				2	1.50
				1 pair .....	.75
				1	1.00
				7,000	88.53
				500	12.50
				2	3.00
				24 papers	1.20

B.—Detailed statement of articles of clothing, equipage, and materials

SAINT LOUIS, MO.—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Wire, coppered	Von der Au Bros., Saint Louis.	June 30, 1888	25 pounds.....	\$1. 63
Do.	do.	June 22, 1888	250 pounds.....	10. 00
White lead				
Chrome green				
Patent drier				

NEW YORK.

Woven-wire fabrics				
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LEAVENWORTH MILITARY PRISON.

Brushes, dusting	Whitcher & Emery, Boston	June 30, 1887	6	1. 80
Brushes, marking	do.	do.	24	2. 00
Brushes, round, bristle	do.	do.	2	6. 50
Brushes, stencil	do.	do.	36	3. 00
Burners, kit-lamp	John K. Krieg, New York	do.	36	2. 94
Covers, felt				
Dies, assorted	Geo. H. Van Pelt, Chicago	Aug. 1, 1887	10	31. 00
Do.	Geo. A. Osgood, Stoneham, Mass.	Jan. 30, 1888	10	15. 00
Drills	Park, Crancer & Co., Leavenworth, Kans.	Sept. 26, 1887	24	6. 90
Drills, twist	do.	do.	4	3. 00
Figures, steel	John K. Krieg, New York	June 30, 1887	1 set	1. 79
Files, square	Whitcher & Emery, Boston	do.	12	1. 60
Do.	E. E. Spencer & Co., New York.	do.	12	1. 74
Files, flat	do.	do.	12 .....	. 94
Files, square	do.	do.	12 .....	. 94
Hatts, awl, patent	Whitcher & Emery, Boston	do.	12 dozen	11. 76
Hatts, awl, sewing	do.	Apr. 10, 1888	12 dozen	11. 76
Hammers, crispin.	E. E. Spencer & Co., New York.	June 30, 1887	12	6. 95
Do.	do.	do.	12	7. 95
Jacks, crispin.	Whitcher & Emery, Boston	do.	48	115. 20
Jacks, lasting				
Knives, breasting	E. E. Spencer & Co., New York.	June 30, 1887	48	9. 55
Knives, cutting	Laing & McGinnis, Philadelphia.	do.	108	12. 60
Knives, guard	do.	do.	156	13. 28
Knives, Chase skiving	Whitcher & Emery, Boston	do.	2	2. 50
Knives, Tripp's skiving	E. E. Spencer & Co., New York.	do.	12	1. 90
Knives, Amazon skiving	John K. Krieg, New York	do.	12	7. 00
Knives, Webster skiving	Laing & McGinnis, Philadelphia.	do.	60	5. 00
Knives, Power splitter	Whitcher & Emery, Boston	Aug. 1, 1887	2	31. 00
Knives, Hawkins strip-per.	do.	June 30, 1887	1	4. 59
Lamps, kit	E. E. Spencer & Co., New York.	do.	12	3. 47
Letters, steel	do.	do.	1 set .....	. 90
Tapely heel burnishing machine.	do.	do.	1	264. 00
Parts for Wheeler & Wilson machine.	Wheeler & Wilson Manufacturing Company, Saint Louis.	do.	54 parts	4. 77
Do.	Whitcher & Emery, Boston	do.	77 parts	2. 83
Do.	do.	do.	14 parts	2. 74
Do.	John K. Krieg, New York	do.	136 parts	3. 49
Do.	Whitcher & Emery, Boston	Aug. 1, 1887	6 parts 72

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SAINT LOUIS, MO.—Continued.

NEW YORK.

LEAVENWORTH MILITARY PRISON.

[illegible]

B.—Detailed statement of articles of clothing, equipage, and materials

LEAVENWORTH MILITARY PRISON—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Parts for Wheeler & Wilson machine.	W. A. Butch, Saint Louis, Mo.	Dec. 24, 1887	12 parts.....	\$0.36
Do.	Geo. A. Smith, Philadelphia.	do	7 parts.....	.96
Parts for N. Y. counter-skiver machine.	E. E. Spencer & Co., New York.	June 30, 1887	3 parts.....	2.47
Parts for G. & McKay stitching-machine.	G. & McKay Sewing Machine Company, Boston, Mass.	do	225 parts.....	123.63
Parts for G. & McKay channel-machine.	do	do	52 parts.....	13.73
Do.	do	Sept. 16, 1887	74 parts.....	16.60
Parts for nat. wax-thread machine.	Whitcher & Emery, Boston, Mass.	June 30, 1887	56 parts.....	2.25
Do.	do	do	do	do
Do.	Whitcher & Emery, Boston, Mass.	Aug. 1, 1887	3 parts.....	30.00
Do.	Geo. A. Smith, Philadelphia, Pa.	Dec. 24, 1887	5 parts.....	13.00
Tips for punches	E. E. Spencer, New York	June 30, 1887	12.....	1.34
Parts for McK. turn shoe	do	do	12 parts.....	2.68
Parts for heeling machine	do	do	do	do
Do.	J. H. Krieg, New York	Dec. 26, 1887	22 parts.....	301.00
Gears for power rolling machine.	do	do	do	do
Pincers, shank	Whitcher & Emery, Boston	June 30, 1887	2 dozen.....	15.00
Saws, circular	Park, Crancer & Co., Leavenworth, Kans.	Sept. 16, 1887	2.....	7.50
Seals, brass	Whitcher & Emery, Boston	June 30, 1887	4.....	7.00
Shavers, heel	do	do	17 dozen.....	89.25
Slips, oil-stone	do	Aug. 1, 1887	6.....	.86
Do.	do	do	6.....	2.25
Sticks, emery	Edwards & Castle, Philadelphia.	June 30, 1887	60.....	6.25
Straps, measuring	Whitcher & Emery, Boston	do	12.....	.60
Tool steel	Park, Crancer & Co., Leavenworth, Kans.	Sept. 16, 1887	23 pounds.....	2.42
Do.	do	do	25 pounds.....	1.25
Do.	do	do	20½ pounds.....	2.36
Type, for marking linen	do	do	do	do
Vise	Park, Crancer & Co., Leavenworth, Kans.	Feb. 23, 1888	1.....	7.00
Awls, sewing	Whitcher & Emery, Boston	June 30, 1887	2 gross.....	2.44
Do.	E. E. Spencer & Co., New York	do	15 gross.....	18.45
Do.	Whitcher & Emery, Boston	do	13 gross.....	15.99
Do.	do	Aug. 1, 1887	5 gross.....	6.15
Do.	do	Apr. 10, 1888	12 gross.....	14.78
Do.	do	do	12 gross.....	15.84
Acid, oxalic	do	do	do	do
Do.	Adolf Lange, Leavenworth, Kans.	June 2, 1888	20 pounds.....	3.00
Bees-wax	E. E. Spencer & Co., New York	June 30, 1887	7 pounds.....	1.95
Bristles, sewing	Whitcher & Emery, Boston	do	14 pounds.....	233.80
Do.	do	Aug. 1, 1887	5 pounds.....	83.50
Brushes, ink, round	do	June 30, 1887	12.....	.30
Cement, channel	do	Aug. 1, 1887	10 gallons.....	8.70
Do.	Geo. A. Smith, Philadelphia.	Feb. 23, 1888	10 gallons.....	10.00
Duck, cotton	do	do	do	do
Do.	Small & Vories, Leavenworth, Kans.	Sept. 16, 1887	2,611 yards.....	456.92
Epsom salts	do	do	do	do
Do.	Geo. A. Eddy, Leavenworth, Kans.	June 2, 1888	40 pounds.....	1.60
Eyelids	Edwards & Castle, Philadelphia.	June 30, 1887	1,000,000.....	60.00
Flour, rye	John Vogel, Leavenworth	Aug. 1, 1887	2,000 pounds.....	45.00
Gun tragacanth	Whitcher & Emery, Boston	June 30, 1887	30 pounds.....	13.50
Ink, burnishing	do	do	200 gallons.....	74.00
Do.	do	do	60 gallons.....	22.30
Ink, indelible	John K. Krieg, New York	June 30, 1887	6 bottles.....	2.10
Laces, linen	Eugene H. Conklin, New York	Aug. 1, 1887	24,500 pairs.....	857.50

purchased by the Quartermaster's Department, etc.—Continued.

LEAVENWORTH MILITARY PRISON—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				306 parts	\$15.87
				3 parts	2.47
				421 parts	159.05
Peter L. Cox, Boston	Oct. 10, 1887	30 parts	\$0.75		
				88 parts	46.60
				12 parts	1.14
				12 parts	2.68
McK. & B. Heeling Machine Association, Boston	Feb. 4, 1888	1 part	8.45		
G. W. Emerson & Co., Lynn, Mass.	Feb. 14, 1888	3	6.15	24 parts	309.45
				3	6.15
				2 dozen	15.00
				2	7.50
				4	7.00
				17 dozen	89.25
				12	3.11
				60	6.26
				12	.60
J. K. Krieg, New York	Sept. 6, 1887	50 sets	13.25	684 pounds	6.05
				50 sets	13.25
				1	7.00
Adolf Lange, Leavenworth,	Apr. 23, 1888	10 pounds	1.50	59 gross	73.65
				30 pounds	4.50
				7 pounds	1.05
				19 pounds	317.30
				12	.80
Schuneman & Evans, Leavenworth, Kans.	Sept. 2, 1887	89 yards	16.47	20 gallons	18.70
				2,700 yards	473.39
Adolf Lange, Leavenworth, Kans.	Apr. 23, 1888	20 pounds	1.00		
				60 pounds	2.60
				1,000,000	60.00
				2,000 pounds	45.00
				30 pounds	13.50
				280 gallons	96.20
				6 bottles	2.10

B.—Detailed statement of articles of clothing, equipage, and materials

LEAVENWORTH MILITARY PRISON—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Laces, porpoise	Laing & Maginnis, Philadelphia.	June 30, 1887	52,990 pairs	\$1,695.68
Lamp-wicks	Geo. A. Eddy, Leavenworth, Kans.	do	2 gross .....	.71
Do	do	do	2 gross	1.00
Leather, counter	American Oak Leather Co., Cincinnati, Ohio.	do	1,200 pounds	332.23
Leather, grain	England & Bryan, Philadelphia.	do	22,000 sq. feet	4,455.00
Do	do	do	20,000 sq. feet	4,020.00
Sheepskin skivers	Whitcher & Emery, Boston ..	June 30, 1887	6,820 square feet ..	336.91
Do	do	Aug. 1, 1887	1,500 square feet ..	74.10
Leather, solo	England & Bryan, Philadelphia.	June 30, 1887	111,120 pounds ..	34,743.20
Leather, wax upper	do	do	45,500 square feet ..	7,598.50
Do	do	do	75,000 square feet ..	12,450.00
Do	do	do	70,760 square feet ..	13,080.64
Do	do	June 2, 1888	2,400 square feet ..	360.00
Leather, welt	do	June 30, 1887	2,100 pounds	619.50
Do	do	Aug. 1, 1887	2,300 pounds	655.50
Lumber, poplar	Frank G. Markart, Leavenworth, Kans.	do	3,000 feet	150.00
Nails, channel	Mantle & Cowan, Louisville, Ky.	do	1,700 pounds	124.10
Nails, Swede	Laing & Maginnis, Philadelphia.	do	700 pounds	33.11
Needles, G. and McKay stitching ..	do	do	3,500	109.20
Needles, Wheeler and Wilson ..	E. E. Spencer, New York ..	do	800	10.55
Do	Whitcher & Emery, Boston ..	do	500	6.70
Oil, lard	do	June 30, 1887	30 gallons	22.20
Oil, mineral	do	do	do	do
Oil, neat's foot	Whitcher & Emery, Boston ..	June 30, 1887	120 gallons	69.66
Oil, sperm	E. E. Spencer & Co., New York.	do	25 gallons	24.50
Powder, emery	John K. Krieg, New York ..	do	10 pounds .....	.60
Sand-paper	E. E. Spencer & Co., New York.	do	3 reams	10.77
Do	Whitcher & Emery, Boston ..	Aug. 1, 1887	1 ream	3.60
Do	Adolf Lange, Leavenworth, Kans.	June 2, 1888	1 ream	3.35
Sponge	Whitcher & Emery, Boston ..	June 30, 1887	11 pounds	21.67
Studs, lacing	The Lacing Stud Company ..	do	650,000	1,551.61
Tacks, lasting, Scotch ..	Whitcher & Emery, Boston ..	June 30, 1887	100 gross	17.08
Do	do	do	24 gross	5.90
Tacks, lasting, Swede ..	do	do	700 pounds	70.00
Do	do	Aug. 1, 1887	600 pounds	60.60
Do	do	June 30, 1887	1,300 pounds	117.00
Thread, linen	do	do	do	do
Thread, machine	do	do	do	do
Thread, metal	J. R. Leeson & Co., Boston ..	Sept. 16, 1887	220 pounds	231.00
Do	do	Sept. 23, 1887	1,338 pounds	1,404.90
Thread, shoe	Rowland A. Robbins, New York.	June 30, 1887	300 pounds	179.70
Do	do	Aug. 1, 1887	148 pounds	88.36
Tongues	Eugene H. Conklin, New York.	do	400 pairs	17.00
Waste, cotton	Whitcher & Emery, Boston ..	June 30, 1887	1,250 pounds	118.75
Wax, liquid	do	do	48 gallons	31.16
Wax, sewing	E. E. Spencer & Co., New York.	do	4,600 balls	20.65
Do	Whitcher & Emery, Boston ..	Aug. 1, 1887	1,600 balls	7.12
Do	Geo. A. Smith, Philadelphia.	Dec. 24, 1887	3,000 balls	13.50
Wire, brass screw	do	do	do	do
Do	do	do	do	do
Zinc, sheet	Whitcher & Emery, Boston ..	June 30, 1887	306½ pounds	27.59
Blue	do	do	200 pounds	30.00
Iron, round	Frank G. Markart, Leavenworth, Kans.	do	7,000 pounds	234.50

QUARTERMASTER-GENERAL.

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purchased by the Quartermaster's Department, etc.—Continued.

LEAVENWORTH MILITARY PRISON—Continued.

Purchased in open market.				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				77,490 pairs	\$2,553.18
				4 gross	1.70
				1,200 pounds	332.28
				42,006 square feet	8,475.00
				8,320 square feet	411.01
				111,120 pounds	34,743.20
				202,660 square feet	33,439.14
				4,400 pounds	1,275.00
				3,000 feet	150.00
				2,400 pounds	157.21
				3,500	109.20
				1,300	17.25
				30 gallons	22.20
				140 gallons	23.27
				120 gallons	69.60
				25 gallons	24.50
				10 pounds .....	.60
				5 reams	17.72
				11 pounds	21.67
				650,000	1,551.61
				124 gross	22.98
				2,600 pounds	247.00
				20 pounds	31.20
Jas. K. Michael, New York	Sept. 12, 1887	20 pounds	31.20	398 pounds	278.60
do	do	252 pounds	176.40	1,558 pounds	1,635.90
do	Oct. 14, 1887	146 pounds	102.20	448 pounds	268.06
				400 pairs	17.00
				1,250 pounds	118.75
				48 gallons	31.16
				9,200 balls	41.27
James W. Brooks, Boston	Nov. 7, 1887	250 pounds	141.27	550 pounds	318.06
do	May 17, 1888	100 pounds	56.21	306 1/2 pounds	27.59
do	June 18, 1888	200 pounds	120.60	200 pounds	30.00
				7,000 pounds	234.58

B.—Detailed statement of articles of clothing, equipage, and materials

LEAVENWORTH MILITARY PRISON—Continued.

Articles.	Purchased under contract.			
	Name of contractor.	Date of contract.	Quantity delivered.	Cost.
Lumber, hickory.....	Thomas A. Garrigues, Leavenworth, Kans.	June 30, 1887	30,000 feet.....	\$1,950 00
Nuts, iron.....	Frank G. Markart, Leavenworth, Kans.	do.....	400 pounds.....	31.60
Sand paper.....	Whitcher & Emery, Boston	do.....	40 quires.....	7.20
Do.....	do.....	do.....	20 quires.....	4.00
Seats, rawhide.....	England & Bryan, Philadelphia.	do.....	4,000.....	2,600.00
Tiongs, rawhide.....	do.....	do.....	4,000.....	1,120.00
Corn, broom.....	Marcus A. Kelley, Leavenworth, Kans.	do.....	42,000 pounds.....	1,764.98
Glue.....	Whitcher & Emery, Boston	do.....	100 pounds.....	15.00
Handles, broom.....	Marcus A. Kelley, Leavenworth, Kans.	do.....	20,000.....	290.00
Nails, wire.....	do.....	do.....	do.....	do.....
Needles, broom.....	Marcus A. Kelley, Leavenworth, Kans.	do.....	20.....	10.00
Twine, broom.....	Whitcher & Emery, Boston	do.....	300 pounds.....	59.70
Wire, broom.....	Mantle & Cowan, Louisville, Ky.	do.....	740 pounds.....	46.25
Lampblack.....	Geo. A. Eddy, Leavenworth, Kans.	do.....	10 pounds.....	1.50
Lumber, pine.....	Peter Bubbs, Leavenworth, Kans.	do.....	61,000 feet.....	1,061.40
Nails, cut.....	Park, Crancer & Co., Leavenworth, Kans.	Sept. 16, 1887	6 kegs.....	15.00
Do.....	do.....	do.....	20 kegs.....	55.00
Nails, wrought.....	do.....	do.....	13 kegs.....	52.00
Paper, manilla.....	Mantle & Cowan, Louisville, Ky.	June 30, 1887	14 reams.....	76.85
Screws.....	Rowland A. Robbins, New York.	June 30, 1887	200 gross.....	60.00
Straps, box, wire.....	A. Reinheimer, Philadelphia	Aug. 1, 1887	20,000 feet.....	78.00
Tags, shipping.....	Whitcher & Emery, Boston	June 30, 1887	5,000.....	4.00
Do.....	do.....	do.....	do.....	do.....
Turpentine.....	Geo. A. Eddy, Leavenworth, Kans.	June 30, 1887	10 gallons.....	6.00
Wax, sealing.....	Whitcher & Emery, Boston	do.....	75 pounds.....	17.25

DIVISION OF THE MISSOURI.

Square iron, 3/4".....	Nicols & Dean, St. Paul, Minn.	Nov. 4, 1887	2,018 pounds.....	48.43
Carbide paper.....	St. Paul Book & Stationery Company, St. Paul, Minn.	May 5, 1888	200 pounds.....	3.50
Wrapping paper.....	do.....	do.....	200 sheets.....	1.40
Supporting springs.....	Thos. E. O'Brien, Chicago	Mar. 9, 1888	150 pounds.....	1.80
Iron bolts.....	do.....	do.....	100 pounds.....	.70
Steel coppered wire.....	Hibbard, Spencer, Bartlett & Co., Chicago.	do.....	50 pounds.....	1.70
Do.....	do.....	do.....	50 pounds.....	.55
Steel mattress wire.....	do.....	do.....	15 pounds.....	.90

QUARTERMASTER-GENERAL.

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purchased by the Quartermaster's Department, etc.—Continued.

LEAVENWORTH MILITARY PRISON—Continued.

Purchased in open market				Total.	
From whom purchased.	Date of purchase.	Quantity purchased.	Cost.	Quantity.	Cost.
				30,000 feet	\$1,950.00
				400 pounds	31.60
				60 quires	11.20
				4,000	2,600.00
				4,000	1,120.00
				4,200 pounds	1,784.98
				100 pounds	15.00
				20,000	290.00
Park, Crancer & Co., Leavenworth, Kans.	July 1, 1887	1 keg	\$7.50	1 keg	7.50
				20	10.00
				300 pounds	59.70
				740 pounds	46.25
				10 pounds	1.50
				61,000 feet	1,061.40
				26 kegs	70.00
				13 kegs	52.00
				14 reams	76.85
				200 gross	60.00
				26,000 feet	78.00
George A. Spooner, Leavenworth, Kans.	Feb. 4, 1888	2,000	3.50	7,000	7.50
				10 gallons	6.00
				75 pounds	17.25

DIVISION OF THE MISSOURI.

				2,018 pounds	48.43
				200 pounds	3.50
				200 sheets	1.40
				150 pounds	1.80
				100 pounds .....	.70
				100 pounds	2.25
				15 pounds .....	.90

C.—Statement of amounts received and remitted by the Quartermaster's Department on account of clothing and equipage during the fiscal year ending June 30, 1888.

Appropriated by Congress.....	\$1,150,000.00	Remitted for purchase and manufacture of clothing and equipage.....	\$1,362,787.68
Received from issues of clothing and equipage made to the militia of the States and Territories.....	112,638.00	Balance in Treasury and due on contracts not yet complete.....	3,792.58
Received from other sources.....	103,942.26		
Total.....	1,366,580.26	Total.....	1,366,580.26

D.—Statement showing remittances on account of clothing and equipage during the fiscal year ending June 30, 1868.

Division of the Atlantic.....	\$74.00	Depot at Jeffersonville.....	\$161,914.39
Division of the Missouri.....	6.65	Depot at Saint Louis.....	13,366.10
Department of the Missouri.....	17.00	Depot at San Francisco.....	259,335.54
Department of Texas.....	4.00	Willels Point, N. Y.....	55.00
Department of the Platte.....	35.00	Military Prison, Fort Leavenworth, Kans.....	104,499.31
Department of Dakota.....	1,348.43		
Depot at New York.....	3.50	Total.....	1,362,787.68
Depot at Philadelphia.....	822,128.76		

E.—Statement showing articles of clothing and equipage manufactured at the Military Prison, Fort Leavenworth, Kans., for the Quartermaster's Department during the fiscal year ending June 30, 1888; also cost of materials, labor, etc.

Articles.	No. made.	Material.	Civilian labor.	Prison labor.	Royalty on machinery.	Total.
Boots:						
Mounted, sewed.....pairs..	6,056	\$19,342.19	\$480.82	\$3,313.00	\$203.12	\$23,339.13
Mounted, brass-screwed.....do..	626	1,829.02	55.21	284.00	3.47	2,171.70
Old style, brass-screwed.....do..	1,501	2,852.15	112.93	402.75	4.59	3,372.42
Shoes:						
Campaign, sewed.....do..	23,077	47,606.97	1,715.08	8,569.00	774.92	58,665.97
Post, sewed.....do..	12,280	25,065.45	924.82	4,556.50	413.70	30,960.47
Post, brass-screwed.....do..	8	16.90	.63	2.00	.01	19.57
Old style, brass-screwed.....do..	2,951	3,933.09	191.41	467.25	8.28	4,600.03
Tap-soling boots and shoes.....do..		609.22	118.90	140.00		868.12
Corn brooms.....number..	21,378	2,218.61		1,124.25	32.80	3,375.66
Barrack chairs.....do..	4,116	6,009.26		784.50		6,793.76
Total.....		109,482.86	3,590.80	19,643.25	1,440.92	134,166.83

Value of scrap-leather sold during the fiscal year on account of shoes.....\$2,783.87
Value of scrap-leather sold during the fiscal year on account of boots.....291.08

Average cost of—	Prison labor.	Material, royalty and civilian labor.	Total.
Boots:			
Mounted, sewed.....per pair..	\$0.55	\$3.31	\$3.85
Mounted, brass-screwed.....do..	.45	3.02	3.47
Old style, brass-screwed.....do..	.27	1.98	2.25
Shoes:			
Campaign, sewed.....do..	.37	2.17	2.54
Post, sewed.....do..	.37	2.15	2.52
Post, brass-screwed.....do..	.25	2.20	2.45
Old style, brass-screwed.....do..	.16	1.40	1.56
Corn brooms.....each.....	.05	.11	.16
Barrack chairs.....do..	.19	1.46	1.65

F.—Statement showing value of labor performed for the Quartermaster's Department by the Military Prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

	Days' work.	Per diem.	Total.
General work	18,256	\$0.35	\$6,389.60
Work on post-office fixtures	55	.50	27.50
Making boots and shoes	35,641	.50	17,835.50
corn brooms	2,268½	.50	1,104.25
broom handles	40	.50	20.00
stable brooms	547	.50	273.50
barrack chairs	1,529	.50	764.50
field desks	80	.50	40.00
mess tables and benches	1,638½	.50	819.37
boxes and crates	1,951	.50	975.50
chair-bolts	40	.50	20.00
boiler bands	1½	.50	.75
tin and iron ware	3,140	.50	1,570.00
harness	3,658	.50	1,829.00
harness pegs	2	.50	1.00
shoe racks	18	.50	9.00
die blocks	26	.50	13.00
Piling lumber	43	.50	21.50
Brick-laying	5	.50	2.50
Total			31,716.47

G.—Statement showing articles of clothing and equipage issued to the Military Prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

Articles.	Quantity.	Condition.	Price.	Amount.
Boots:				
Cavalry, sewed	31	New	\$4.11	\$127.41
Cavalry, brass-screwed	1	do	4.27	4.27
Old pattern, brass-screwed	95	do	2.75	261.25
Shoes:				
Post, sewed	50	do	2.82	141.00
Campaign, sewed	94	do	2.64	248.16
Field, sewed	100	do	1.03	103.00
Brass-screwed, old pattern	157	do	1.83	287.31
Shoe laces	85	do .....	.03½	2.72
Do	42	do .....	.03½	1.37
Corn brooms	777	do .....	.24	186.48
Overcoats	58	do	8.00	464.00
Do	26	do	3.50	91.00
Do	216	do	2.00	432.00
Metal thread	3	do	1.05	3.15
Flannel, d-b. blouse lining	61	do .....	.32	19.52
Sole leather, cropped	75	do .....	.33½	25.05
Total				2,397.69

H.—Statement showing articles of quartermaster's stores issued to the Military Prison at Fort Leavenworth, Kans., during the fiscal year ending June 30, 1888.

Articles.	Quantity.	Amount.	Articles.	Quantity.	Amount.
Bake pans	16	\$6.88	Stable broom handles	4	\$0.32
Tin buckets	2	.80	Lead lines	1	2.51
Do	1	.44	Wheel lines	1	1.85
Tin wash-basins	2	.38	Check lines	1	.65
Oil tank	1	4.10	Total		26.33
Stable brooms	20	8.40			

Statement showing articles of clothing, equipage, and materials issued to the militia of the States and Territories under the act of Congress amending section 1661 of the Revised Statutes, during the fiscal year ending June 30, 1888, also money value of same, which has been placed to the credit of the appropriation for clothing and equipage.

States and Territories.	Aiguillettes and should- der knots.	Axons.	Ax helms.	Blankets, rubber.	Blankets, woolen.	Blouses.	Books, post sets.	Books, regimental sets.	Camp-kettles.	Caps, forage.	Cap ornaments.	Cap letters.	Cap numbers.
Delaware		20	20						80				
Illinois									300				
Indiana		100	100	100	100								
Kansas						1,099				1,102			
Kentucky					300	140				800			
Maine						573				100			
Michigan						135							
Mississippi		25	25						20				
Missouri					40	210				510	510	350	300
New Hampshire					300								
North Carolina										210	209	200	484
South Carolina					32				40				
Tennessee		10	10			500				500	500	500	500
West Virginia		35								83	62		
Alaska						106				106	100	100	
District of Columbia						89	2	7		652	1,103	1,136	1,000
Total	35	135	135	100	872	3,002	2	7	423	4,063	2,489	2,295	2,364

States and Territories.	Signal Corps badges.	Chevrons, cloth, pairs.	Chevrons, gold lace, pairs.	Cloth, d. b., yards.	Cloth facing, yards.	Colors, national.	Colors, regimental.	Colors, camp.	Color belt and sling.	Coats, uniform dress.	Drums and fixtures.	Facings, dress coat, sets.	Fifes.
Alabama		11				5	4						
Colorado		387		280							4		
Indiana											70		120
Kansas		226	3										
Kentucky		161									12		
Maine					68								
Mississippi													
Missouri		134	9	525					1	50			
North Carolina		39		364		1						210	
South Carolina										2			
Tennessee		154						10			10		10
West Virginia		61	10	16						417	5		
Alaska		23								6			
District of Columbia		28											
Total	28	1,485	22	1,185	143	6	4	10	1	475	103	210	130

Statement showing articles of clothing, equipage, and materials, etc.—Continued.

States and Territories.	Flags, garrison.	Flags, post.	Flags, storm and rec.	Flags, halliards.	Flannel, d. b., blouse, yards.	Gauntlets, leather, pairs.	Gloves, white Berlin, pairs.	General guides.	Guidons.	Hatchets.	Hatchet helves.	Helmets.	Helmets, cork.
Alabama	1	12	5						2	12	12		50
Colorado		1	1		12								
Delaware			1		1					20	20		
Indiana										100	100		
Mississippi		1	1		2				2	10	10		
Missouri						40	40		1			350	40
North Carolina												210	
Ohio					800								
South Carolina												1	
Tennessee	1	2	4	15				8		15	15		
West Virginia												399	100
Alaska							106						
Total	2	6	12	20	800	40	146	8	5	147	147	960	190

States and Territories.	Helmet numbers.	Helmet spikes.	Helmet lyres.	Helmet eagles.	Helmet-top bases.	Kersey, s. b., yards.	Leggins, pairs.	Mattresses.	Markers.	Mess pans.	Musio pouches.	Overcoats.	Pickaxes.
Colorado						1,144				150			
Delaware										1			
Illinois										800			100
Indiana												100	100
Kentucky												250	
Maine						1,000		400					
Michigan												600	
Mississippi										50			
Missouri	300	40				413						140	
North Carolina						278						1	
Ohio						1,306							
Pennsylvania						184						200	
South Carolina										70			
Tennessee								8					25
West Virginia		121	98	100	100	41					21		
District of Columbia							1,148						
Total	300	161	98	100	100	4,365	1,148	400	8	1,071	21	1,292	125

Statement showing articles of clothing, equipage, and materials, etc.—Continued.

States and Territories.	Pickax helves.	Pillows.	Ponchos, rubber.	Shovels.	Spades.	Tents, common, A.	Tents, common, closed corners.	Tents, common poles, sets.	Tents, conical wall.	Tents, hospital.	Tents, hospital flies.	Tents, hospital poles, sets.	Tents, hospital, pins.
Alabama				2									
Connecticut						100							
Delaware					20		80			2			
Florida							90			2			
Illinois													2,000
Indiana	100				100		300						
Iowa										10			
Maine		400											
Mississippi			10		16		112			6			
Missouri			90						1				
New Jersey							100						
New York										6			
North Carolina							70			1			
Ohio										12			
Pennsylvania							718	511		32	32	32	50
South Carolina							75			1			
Tennessee	25			10	25		360			2			
Alaska							25						
Total	125	400	90	62	155	100	1,870	511	1	78	32	32	2,050

States and Territories.	Tents, wall.	Tents, wall, flies.	Tents, wall, poles.	Tents, wall, pins.	Tents, altered.	Trousers, kersey, pairs.	Trousers, stripes, pairs.	Trousers, trimmings, sets.	Trousers, linen, pairs.	Trumpets.	Trumpets, cords and tassels.	Trumpets, crooks.	Uniforms, n. c. o., sets.
Alabama									50				
Colorado							314			2	2		
Connecticut	100				100								
Delaware	25												
Florida	10												
Georgia	15												
Illinois										175			
Indiana	50									60	60		
Iowa	200	72	216	2,100									
Kansas						1,039	170						
Kentucky	30					800							
Michigan						200							
Mississippi	55									2	2		
Missouri						210	100	300		4	2		
New Jersey	25												
North Carolina	16						210			2	2	2	
Pennsylvania		80	150										
South Carolina	24												
Tennessee	30					500	165			10	10		
West Virginia						390	293			2	2		
Alaska	6					106	30						
District of Columbia						1,148	314						4
Total	586	152	266	2,100	100	4,453	1,506	300	50	257	80	2	4

Statement showing articles of clothing, equipage, and materials, etc.—Continued.

States and Territories.	Amount.	States and Territories.	Amount.
Alabama.....	\$1,227.07	Missouri.....	\$6,205.18
Colorado.....	2,646.66	New Hampshire.....	1,284.00
Connecticut.....	4,069.00	New Jersey.....	1,863.25
Delaware.....	1,624.93	New York.....	328.86
Florida.....	1,492.73	North Carolina.....	3,142.06
Georgia.....	418.35	Ohio.....	3,854.45
Illinois.....	353.81	Pennsylvania.....	13,505.93
Indiana.....	8,293.03	South Carolina.....	1,783.96
Iowa.....	6,126.10	Tennessee.....	8,759.27
Kansas.....	8,287.04	West Virginia.....	5,202.44
Kentucky.....	10,191.28	Alaska.....	1,306.62
Maine.....	5,525.67	District of Columbia.....	3,931.68
Michigan.....	7,730.00		
Mississippi.....	3,274.03	Total.....	112,638.00

K.—Statement showing articles of clothing, equipage, and quartermaster's stores issued to Indian prisoners during the fiscal year ending June 30, 1888.

Articles.	Quantity.	Articles.	Quantity.
Shirts:		Bedsacks.....	270
Gray flannel.....	67	Pillow-sacks.....	262
Knit, under.....	164	Mosquito bars.....	43
Blouses.....	68	Camp kettles.....	11
Trousers:		Mess-pans.....	14
Boys'.....	4	Axes.....	6
Kersey.....	68	Ax-helves.....	7
Canvas.....	37	Hatchets.....	3
Shawls, women's.....	22	Hatchet helves.....	8
Shoes:		Shovels.....	4
Field.....	12	Pickaxes.....	2
Brass-screwed.....	138	Pickax helves.....	2
Campaign.....	10	Corn brooms.....	25
Post.....	11	Wall tents, complete.....	3
Children's.....	222	Coffee mill.....	1
Women's.....	214	Coffee boilers.....	12
Stockings:		Tin cups.....	23
Woolen.....	38	Frying pans.....	12
Cotton.....	280	Rakes, wood.....	2
Boys'.....	286	Hoe and handle.....	1
Girls'.....	208	Scythes.....	2
Women's.....	416	Scythe snaths.....	2
Hats:		Lanterns.....	12
Black wool.....	69	Red flannel.....	2,981½
Boys', felt.....	54	Calico.....	4,837½
Boys', straw.....	58	Muslin.....	250
Boys' suits.....	97	Needles.....	6,170
Canvas suits.....	87	Cotton.....	1,513
Canvas overcoats.....	18	Buttons.....	11,911
Canvas sack coats.....	19	Tape.....	80
Drawers.....	87	Scissors.....	20
Woolen blankets.....	212	Thimbles.....	42

L.—Statement showing number and cost of articles and materials purchased for issue to Indian prisoners during the fiscal year ending June 30, 1888.

Articles.	Quantity.	Cost.	Articles.	Quantity.	Cost.
Shoes:			Shirt-waists, boys'.....	82	\$17.09
Women's.....	617	\$636.79	Undershirts, knit, children's,		
Children's.....	364	202.20	number.....	216	26.10
Shawls, women's.....	200	197.15	Flannel, red.....	6,100	1,098.00
Calico.....	5,054½	254.54	Buckets, galvanized iron, num-		
Coats and trousers:			ber.....	124	35.58
Men's.....	134	318.25	Cotton.....	1,736	66.97
Boys'.....	159	311.76	Needles.....	500	.68
Trousers, boys'.....	4	8.00	Tape, white cotton.....	23	.48
Hats, boys'.....	104	40.75	Scissors.....	20	4.80
Stockings:			Thimbles.....	24	.96
Women's.....	1,028	68.05	Muslin:		
Children's.....	704	49.38	Paper.....	40	2.00
Drawers:			Unbleached.....	500	31.25
Knit, boys'.....	123	20.76	Buttons.....	831	14.84
Muslin, girls'.....	99	14.85			
Shirts, white.....	276	131.79	Total.....		3,542.02

Clothing.	Ordnance sergeant.	Com. messary sergeant.	Post quarter-master agts.	Hospital stewards.	Acting hospital stewards.	Private hospital corps.	Ordnance.	Engineers.	Artillery.	Infantry.	Light artillery.	Cavalry or Sig. Corps.
Helmet, without trimmings...each..	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49	\$1.49
Helmet trimmings:												
Hair plume.....do..									.32	.32	.32	.32
Cord and band.....do..									.46	.46	.46	.46
Top piece or base.....do..	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
Socket for plume.....do..									.16	.16	.16	.16
Spike.....do..	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
Eagle.....do..	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
Scroll and rings.....per pair	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02
Side buttons.....do..	.02	.02	.02	.02	.02	.02	.02	.02	.01	.01	.01	.01
Device for shield of eagle.....each..	.02	.02	.02	.02	.02	.02	.02	.02				
Number (white metal).....do..	.82	.82	.82	.82	.82	.82	.82	.82	.01	.01	.01	.01
Cork helmet.....do..	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82
Fatigue or campaign hat:												
Black, wool.....do..	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65
Drab, fur.....do..	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
Cord and tassel.....do..	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
Forage cap.....do..	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55
Wreath with cross, wreath with pen and key, crossed sabers, cannon or rifles, shell and flame, castle, crescent, Geneva cross, bugle for forage cap.....each..	.02	.02	.05	.06	.04	.04	.02	.02	.02	.02	.02	.02
Fur cap.....do..	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Letters, brass.....do..									.01	.01	.01	.01
Numbers, brass.....do..									.01	.01	.01	.01
Overcoat:												
Made.....do..	10.36	10.36	10.36	10.36	10.36	10.35	10.36	10.36	10.36	10.36	10.36	10.36
Unmade.....do..	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61
Uniform coat, non-commissioned officer's, fine quality:												
Made.....each..	7.66	7.66	7.66	7.66	7.66		7.51	7.51	6.71	6.71	6.75	6.75
Unmade.....do..	5.16	5.16	5.16	5.16	5.16		5.01	5.01	4.96	4.96	4.75	4.75
Uniform coat:												
Musician's, made.....do..								8.03	7.98	7.98	7.77	7.77
Musician's, unmade.....do..								5.03	4.98	4.98	4.77	4.77
Private's made.....do..						7.44	7.44	7.44	6.64	6.64	6.60	6.60
Private's, unmade.....do..						4.94	4.94	4.94	4.89	4.89	4.69	4.69
Blouse, fine quality, for non-commissioned officers:												
Made.....each..	4.52	4.52	4.52	4.52	4.52		4.52	4.52	4.52	4.52	4.52	4.52
Unmade.....do..	3.52	3.52	3.52	3.52	3.52		3.52	3.52	3.52	3.52	3.52	3.52
Blouse, musician's and private's:												
Made.....each..						3.68	3.68	3.68	3.68	3.68	3.68	3.68
Unmade.....do..						2.93	2.93	2.93	2.93	2.93	2.93	2.93
Linen collars.....do..	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
Stable frock.....do..												

M.—Statement showing average prices at which the various articles of clothing and equipage are charged to the Army of the United States, etc.—Continued.

Clothing.	Ordnance ser- geants.	Commissary sergeants.	Post quarter- master sgts.	Hospital stewards.	Acting hos- pital stewards.	Private hos- pital corps.	Ordnance.	Engineers.	Artillery.	Infantry.	Lightartil- lery.	Cavalry or Sig- nal Corps.
Shoes:												
Brass-screwed, old pattern do.	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70	\$1.70
Post, machine-sewed do.	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70
Post, brass-screwed do.	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
Campaign, brass-screwed do.	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
Campaign, hand-sewed do.	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Campaign, machine-sewed do.	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
Barrack shoes do.	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90
Canvas leggings do.	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55
Arctic overshoes do.	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Blanket, woolen do.	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
Chevrans, cloth:												
Non-commissioned officers, color and first sergeant's do.	.71	.71	2.28	.83	.71		.71	.71	.71	.71	.71	.71
Sergeant's do.							.38	.38	.38	.38	.38	.38
Corporal's do.							.30	.30	.30	.30	.30	.30
Pioneer's and farrier's do.								.72	.72	.72	.97	.97
Chevrons, device for signal corps do.												.47
Chevrons, gold lace do.	3.21	3.12	3.79	3.57	3.17							
Sergeant-major's do.								4.52	4.07	4.07		4.07
Quartermaster-sergeant's do.								4.28	3.88	3.88		3.88
Chief trumpeter's do.												3.57
Principal musician's do.									3.31	3.31		
Saddler sergeant's do.												3.60
Color sergeant's do.								2.82	2.82	2.82		2.82
First sergeant's do.								3.41	3.02	3.02		3.02
Sergeant's do.							2.21	2.57	2.21	2.21	2.21	2.21
Corporal's do.							1.58	1.58	1.58	1.58	1.58	1.58
Stripes for trousers:												
Sergeant's do.	.23	.23	.23	.35	.29	.23		.18	.29	.18	.18	.18
Corporal's do.								.12	.23	.12	.12	.12
Musician's do.								.23	.46	.23	.23	.23
Facing for uniform coats, including silk do.	.40	.40	.40	.40	.40	.40	.40	.40	.35	.35	.41	.41
Brassards do.						.25						
Chevrons, gold lace, service, peace or war do.	.52	.52	.52	.52	.52	.52	.52	.67	.52	.52	.52	.52
Canvas cap or hood, blanket- lined do.	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
Canvas fatigue coats do.	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
Canvas fatigue trousers do.	.81	.81	.81	.81	.81	.81	.81	.81	.81	.81	.81	.81
Canvas mittens do.	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Poncho, rubber do.											1.55	1.55
Blanket, rubber do.	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13		

Summer clothing issued under special authority from the War Department.

Articles.	Amount.	Articles.	Amount.
NON-COMMISSIONED OFFICERS.		Trousers, kersey, light shade, old sizes:	
Coats do.	\$1.09	Foot, made, heavy quality, per pair.	\$2.00
Trousers do.	.83	Foot, unmade, heavy quality do.	1.25
Overalls do.	.43	Foot, made, light quality do.	1.75
		Foot, unmade, light quality do.	1.25
PRIVATEES.		Mounted, made, heavy quality do.	2.50
Coats do.	.98	Mounted, unmade, heavy quality, per pair do.	1.75
Trousers do.	.88	Mounted, made, light quality, per pair do.	2.25
Overalls do.	.59	Mounted, unmade, light quality, per pair do.	1.50

Clothing and other articles issued exclusively to bondsmen (G. O. 23, H. Q. A., 1885.)

Articles.	Engineers.	Artillery.	Infantry.	Cavalry or Sig- nal Corps.
Aiguillettes and shoulder-knots per set...	\$1.10	\$1.10	\$1.10	\$1.10
White trousers, linen per pair...	.90	.90	.90	.90
Lyres for helmets or forage-caps each...	.04	.04	.04	.04
Music pouches, large or small do...	5.96	5.96	5.96	5.96
Helmets and trimmings, same as for other enlisted men of the mounted service.				

Articles.	Amount.	Articles.	Amount.
Dark-blue cloth, $\frac{1}{2}$ Army standard, per yard	\$1.98	Canton flannel, $\frac{1}{2}$ per yard..	\$0.09
Dark-blue blouse flannel, $\frac{1}{2}$ Army standard per yard..	1.20	Blouse lining, flannel, $\frac{1}{2}$ dark blue, do..	.32
Dark-blue shirting flannel, $\frac{1}{2}$ Army standard per yard..	.89	Dark-blue cloth, $\frac{1}{2}$ fine quality do..	2.09
Sky-blue kersey, light or heavy, $\frac{1}{2}$ Army standard per yard..	1.48	Dark-blue flannel, $\frac{1}{2}$ fine quality do..	1.54
Uniform dress-coat buttons, large, per dozen .....	.15	Sky-blue kersey, $\frac{1}{2}$ fine quality do..	1.94
Uniform dress-coat buttons, large (staff), per dozen .....	.24	Uniform dress-coat buttons, small, per dozen .....	.06
		Uniform dress-coat buttons, small, (staff) per dozen..	.13

Average prices of articles of equipage.

Articles.	Amount.	Articles.	Amount.
Iron bunk, without slats or bunk-bottoms	\$3.58	Trumpet extra mouth-piece	\$0.25
Iron headsteads, with woven-wire bunk-bottoms	3.19	Fife, "B" or "C" .....	.17
Woven-wire bunk-bottoms:		Books:	
With supporting springs	3.17	Company order .....	.94
Without supporting springs	2.48	Company letter received	1.20
Mattresses	2.19	Company index letter received .....	.70
Mattress covers .....	.65	Company letter sent	1.10
Pillows .....	.30	Company index letter sent .....	.70
Pillow-cases .....	.12	Regimental order	1.26
Bed-sheets .....	.29	Regimental letter received	1.05
Bed-sack .....	.60	Regimental index letter received .....	.35
Pillow-sack .....	.14	Regimental letter sent	1.00
Barrack-bag .....	.50	Regimental index letter sent .....	.35
Mosquito-bar .....	.69	Post order	5.50
Iron pot	1.50	Post letter received	2.89
Camp-kettle .....	.38	Post index letter received .....	.70
Meas-pan .....	.25	Post letter sent	2.78
Ax .....	.64	Post index letter sent .....	.70
Ax-helve .....	.18	Tent, conical wall, complete	30.78
Ax-sling .....	.31	Tent, Sibley	21.81
Hatchet .....	.40	Tent pole, conical wall or Sibley .....	.98
Hatchet helve .....	.04	Tent tripod	2.24
Hatchet-sling .....	.24	Tent pins, conical wall or Sibley, set .....	.19
Spade .....	.40	Tent, Sibley, complete	25.22
Shovel, short-handled .....	.45	Tent, hospital	32.37
Shovel, long-handled .....	.36	Tent fly, hospital	11.74
Pick-ax .....	.63	Tent poles, hospital	1.65
Pick-ax helve .....	.18	Tent pins, hospital	1.05
Drum, complete	6.74	Tent, hospital, complete	46.81
Drum-head batter .....	.52	Tent, wall	15.92
Drum-head snare .....	.38	Tent fly, wall	5.79
Drum sling .....	.49	Tent poles, wall	1.00
Drumsticks, pairs .....	.11	Tent pins, wall .....	.39
Drumstick carriage .....	.23	Tent, wall, complete	22.20
Drum-snare .....	.11	Tent, common, closed corners	9.54
Drum-case .....	.30	Tent, common, laced corners	11.00
Drum-rod .....	.29	Tent poles, common .....	.90
Trumpet, with extra mouth-piece	1.54	Tent pins, common .....	.14
Trumpet cord and tassel .....	.46	Tent, common, closed corners, complete	10.58
Trumpet crook .....	.44	Tent, common, laced corners, complete	12.04
		Tent, shelter, each half	1.00
		Tent poles, shelter .....	.06

Average prices of articles of equipage—Continued.

Articles.	Amount.	Articles.	Amount.
Tent pins, shelter.....set..	\$0.12	Standard	\$30.00
Tent, shelter, complete.....	2.20	Guidon:	
Tent pin, hospital, large or small.....	.02	Cavalry.....	9.45
Tent pin, wall, large.....	.02	Artillery.....	11.87
Tent pin, wall, small or common.....	.01	Ambulance.....	.46
Tent pin, shelter.....	.02	Guide, regimental, general.....	7.00
Tent stove, Sibley or conical wall, each.....	2.00	Marker.....	8.00
Tent stove pipe, Sibley or conical wall, each.....	.13	Color-belt and sling.....	3.00
Flag:		Camp color.....	1.37
Garrison.....	29.50	Company marking-stamp.....	1.84
Post.....	9.95	Stencil-plates.....set..	1.05
Storm and recruiting.....	2.80	Scrubbing-brush.....	.16
Post and field hospital.....	1.95	Corn broom.....	.16
General hospital.....	6.90	Barrack chair (rawhide seat).....each..	1.64
Halliards, garrison and post.....	1.36	Shoe-file.....do.....	.25
Halliards, recruiting.....	.26	Card-holder for bunks.....do.....	.01
Colors:		Buffalo overcoat.....do.....	12.95
National.....	61.75	Canvas overcoat, blanket-lined..do.....	10.96
Regimental.....	130.00		

9.—*Report of Lieut. Col. Charles G. Sawtelle, deputy quartermaster-general U. S. Army, relative to the care and maintenance of national military cemeteries during the fiscal year ended June 30, 1888.*

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 24, 1888.

GENERAL: I have the honor to submit the following report pertaining to national military cemeteries for the fiscal year ending June 30, 1888.

This branch has charge of all matters pertaining to them, and the approaches thereto, and exercises a general supervision over the proper disbursement of the funds provided by Congress for their care and maintenance.

At the commencement of the fiscal year there were 82 national cemeteries, and, no changes having been made, the number remains the same.

At the close of the last fiscal year there were 73 superintendents in service, the full number allowed by law; during the year four have been appointed, two resigned, and two died; leaving the number as at the close of the previous year.

The total number of interments in the national cemeteries at the close of the year was 325,230—known, 176,397; unknown, 148,833.

Removals of remains of deceased soldiers were made during the year from Fort Stockton to the national cemetery at San Antonio, Tex.; from Fort Meyers, Fla., to the Barrancas (Fla.) national cemetery; from Fort Larned, Kans., to the Fort Leavenworth (Kans.) national cemetery; and from Vinegar Hill, Morris Island, South Carolina, to the Beaufort (S. C.) national cemetery.

During the year 3,500 headstones to mark the graves of United States soldiers, sailors, and marines buried in post, private city, and village cemeteries were provided from the regular appropriation for that purpose, and contract made for the supply of 5,000 additional from the appropriation approved March 30, 1888.

Three monuments, in lieu of headstones, for graves of unknown United States soldiers in the post cemeteries at Plattsburgh, Madison Barracks, and Fort Niagara, N. Y., for which contracts were made

under authority from the honorable Secretary of War during the past fiscal year, have been completed.

Wrought-iron flagstuffs have been furnished the national cemeteries at Annapolis, Md.; Brownsville, Tex.; Cypress Hills, N. Y. (upper cemetery); Fort Harrison, Va.; Fort Gibson, Ind. T.; Memphis, Tenn.; Woodlawn (Elmira), N. Y.; and Stone River, Tenn.

At the Corinth (Miss.) national cemetery the north, east, and west sides of the inclosing wall have been rebuilt, and a pair of ornamental wrought-iron drive gates, with walk gate to match, have been provided for the principal entrance. A pair of 12-foot wrought-iron drive gates have also been provided for the opening in the inclosing wall near the new outbuilding at the Andersonville (Ga.) national cemetery.

The superintendent's lodge at the Natchez (Miss.) national cemetery has been raised and repairs and improvements made thereto; and permanent outbuildings have been erected in the Alexandria, Va., Andersonville, Ga., Chattanooga and Nashville, Tenn., and Jefferson Barracks, Mo., national cemeteries, and a receiving vault at the Cypress Hills (N. Y.) national cemetery.

Rostrums have been erected at the Fredericksburgh, Hampton, and Richmond, Va., Philadelphia, Pa., and Springfield, Mo., national cemeteries.

The roadways authorized by Congress, leading to the Richmond and Danville, Va., and the repairs to the road leading to the Vicksburg, Miss., national cemeteries, have been completed, and under the appropriation for repairs to roadways constructed by special authority of Congress, repairs have been made to the roads leading to the Chalmette, La.; Fort Scott, Kans.; Knoxville, Tenn.; Mound City, Ill.; Natchez, Miss.; New Albany, Ind.; and Springfield, Mo., national cemeteries.

Appropriations have also been made by Congress for the construction of roadways to the Alexandria (Pizeville), La.; Corinth, Miss.; San Francisco, Cal.; and New Berne, N. C., national cemeteries.

An addition to the soldiers' lot in the Baxter Springs (Kansas city) cemetery having been donated to the United States by the authorities of that city, the lot has been graded, put in order, inclosed with post-and-chain fence, and otherwise improved.

At the Woodlawn (Elmira, N. Y.) National Cemetery a picket fence has been erected on the north side of the soldiers' lot, and the wall forming the southern boundary repaired and the ground cleaned up, graded, and sodded, and trees planted.

During the year a section in each of the Chalmette, La.; San Antonio, Tex.; Little Rock, Ark.; Cypress Hills, N. Y.; Fort Gibson, Ind. T.; Jefferson Barracks, Mo.; Fort Leavenworth, Kans.; Barrancas, Fla.; Brownsville, Tex.; San Francisco, Cal.; and Arlington, Va., national cemeteries was set apart to be considered and treated as a post cemetery, for the convenience of the garrison in the vicinity and in order to permit the burials therein of such persons as would ordinarily be buried in a cemetery at a military post.

Under the appropriation made by Congress for the erection of suitable fences around the cemeteries in which Confederate dead are buried, near Columbus and on Johnson's Island, Ohio, and for putting the grounds in good condition, a stone wall, with a 9-foot opening, provided with double iron gates, hung on stone posts, has been constructed around the cemetery near Columbus, Ohio, the ground cleaned and leveled, and a large boulder placed in the center of the inclosure, containing the

following inscription, cut in 4-inch letters: "2,260 Confederate soldiers of the war of 1861 to 1865 are buried in this inclosure."

The cemetery on Johnson's Island, near Sandusky, Ohio, has been inclosed with a suitable iron and steel strand fence, and it is contemplated to place a similar bowlder in that inclosure, unless head-stones should be provided, as proposed by an association of ladies in Charleston, S. C.

It having been reported that in consequence of the obliteration of the boundary marks of the Government reservation on Greenwood Island, near Pascagoula, Miss., persons living in the vicinity were encroaching thereon, a new survey was made and maps prepared defining the boundaries, which were also permanently marked by iron pipes driven 6 feet into the ground.

A statement showing the expenditures on account of the cemeteries during the year is herewith inclosed.

Very respectfully, your obedient servant,

C. G. SAWTELLE,

Deputy Quartermaster General, U. S. Army.

The QUARTERMASTER-GENERAL OF THE ARMY.

A.—Statement of disbursements of appropriation for national

Name of cemetery.	Employees.	Tools, stores, and miscellaneous expenditures.	Improvement of grounds.	Inclosures.			Lodges.	
				Construction.	Repair.	Gates.	Construction.	Repair.
Alexandria, La.	\$270.00	\$283.19	\$129.95		\$50.00			\$19.92
Alexandria, Va.	401.50	37.28	52.36					3.00
Andersonville, Ga.	606.70	164.87	398.00		350.10	\$77.68		91.50
Annapolis, Md.	144.50	83.67	64.50					25.00
Antietam, Md.	466.00	34.00	125.00					375.00
Arlington, Va.	6,239.62	453.91	1,495.54					
Ball's Bluff, Va.	12.50							
Barrancas, Fla.	330.00	140.69	54.00		6.50			16.75
Baton Rouge, La.	435.33	36.95	49.93		10.00			20.00
Battle Ground, D. C.		23.82	1.18					
Beaufort, S. C.	644.71	223.94	200.00		98.40			19.75
Beverly, N. J.	7.50	5.65	80.18					
Brownsville, Tex.	420.00	40.00			526.00			88.50
Camp Butler, Ill.	220.00	47.20	54.80					22.70
Camp Nelson, Ky.	138.00	4.10	25.00					
Cave Hill, Ky.		35.45	100.00					40.00
Chalmette, La.	1,142.25	233.13	75.00		200.00			25.00
Chattanooga, Tenn.	2,526.50	40.99	323.38		304.85			49.65
City Point, Va.	225.00	24.58	55.50					
Cold Harbor, Va.		14.20	15.00					3.00
Corinth, Miss.	865.00	49.92	150.00		6,723.01	100.00		
Crown Hill, Ind.		10.00						
Culpeper, Va.	190.00	54.90	28.00					8.60
Cypress Hills, N. Y.	893.50	92.91	364.00					
Danville, Ky.	100.00							
Dauville, Va.	148.33	35.53	6.00					175.00
Daytonville, Ark.	199.94	42.63	28.80		22.00			20.00
Finn's Point, N. J.	31.13	34.02	12.50					8.65
Florence, S. C.	165.00	25.26	50.00		124.60			79.37
Fort Donelson, Tenn.	120.00	14.75	87.75					19.00
Fort Gibson, Ind. T.	100.00	63.03	388.50		25.00			118.79
Fort Harrison, Va.	53.00	39.16						
Fort Leavenworth, Kans.	500.00	9.75	379.46					75.00
Fort McPherson, Nebr.	200.00	32.11	109.80		15.00			80.50
Fort Scott, Kans.	200.00	87.00	51.80		30.00			40.00
Fort Smith, Ark.	250.00	130.70				8.00		
Fredericksburg, Va.	590.50	32.30	100.65					65.00
Gettysburg, Pa.	524.49	32.65	60.63		40.00			150.00
Glendale, Va.		20.15	52.00					
Grafton, W. Va.	187.00	28.20	17.00					10.00
Hampton, Va.	365.50	31.79						150.00
Jefferson Barracks, Mo.	1,099.50	36.00	175.00					35.00
Jefferson City, Mo.	133.75	25.80	20.00		29.95			36.00
Keokuk, Iowa.		8.80	19.50		50.00			18.00
Knoxville, Tenn.	161.00	77.64	50.00					29.67
Lebanon, Ky.	78.00	3.50	30.00					
Lexington, Ky.	60.00							
Little Rock, Ark.	536.90	59.00	439.15		80.25	75.00		18.10
Loudon Park, Md.	290.99	10.00	70.30					
Marietta, Ga.	1,203.25	48.97	601.15		25.00			100.00
Memphis, Tenn.	1,438.42	40.00	99.67					46.50
Mexico City, Mexico.	606.93	46.44	89.94					
Mill Springs, Ky.		19.80	25.00					2.20
Mobile, Ala.	50.00	25.10	89.50					70.00
Mound City, Ill.	449.41	43.04	106.65					24.00
Nashville, Tenn.	1,877.39	166.00	190.50					52.00
Natchez, Miss.	626.00	43.69	79.25					1,375.00
New Albany, Ind.	402.25	12.45	9.50					30.00
New Bern, N. C.	199.50	208.25	49.75					11.75
Philadelphia, Pa.	796.88	251.98	88.00					835.11
Pittsburgh Landing, Tenn.	390.00	178.90			50.00			51.70
Poplar Grove, Va.	253.25	12.40	53.10					12.50
Port Hudson, La.	297.00	216.48	150.70		73.75			76.00
Quincy, Ill.	25.00							
Raleigh, N. C.	220.00	34.40	14.60		10.00			22.45
Richmond, Va.	363.00	47.38	117.90		12.00			4.50
Rock Island, Ill.	10.00							
Salisbury, N. C.	207.50	21.42	89.87		160.97			9.99
San Antonio, Tex.	113.75		47.50		200.31	195.00		34.00
San Francisco, Cal.	410.00	447.55						
Seven Pines, Va.		13.48	8.00					9.00
Soldiers' Home, D. C.	929.29	100.00	220.23					
Springfield, Mo.	250.00	55.00	99.94					75.00

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Outhouses (sheds, stables, etc.).	Trees, plants, etc.	Drainage.	Barrack and office furniture.	Flag-staffs and monuments.	Water supply.	Interments.	Fuel.	Rent of quarters.	Advertising.	Lawn-mowers.	Total.
\$1,423.50	\$44.97	\$120.50	\$14.96	\$10.00	\$303.79		\$27.50				\$1,199.32
2,512.03	48.00			10.00	50.00						2,103.10
	10.00			47.64	442.65		42.74				4,761.71
					35.00		63.60				453.05
	125.70	500.00		30.00		\$4.50					1,068.10
10.00											8,644.77
	15.00	10.00	46.75	5.00	470.00		37.80				1,038.94
7.50				10.00	20.00						691.76
											25.00
11.50	50.50			54.40			45.00				1,239.30
4.26	25.00		5.80	3.12	84.50		47.83	\$27.00			141.16
							28.00				1,245.90
8.00				10.50			24.76				492.14
26.04	24.80	149.30		15.75			47.50				214.60
2,081.00	48.50	233.88		22.50	25.00						193.95
					6.00		54.00				1,945.27
				3.00		5.00	29.89				6,595.14
59.95		224.60	41.80	9.50	325.00		58.06				374.14
							15.00				50.20
5.15							43.98				8,592.76
796.00		15.00	21.98	80.00	110.00		33.06				10.00
							82.83				319.11
67.00	14.10	19.00	30.00	5.00	36.67		38.28			5	2,455.82
16.00	9.90			6.00	24.00		34.00				100.00
	16.10						60.45				574.91
14.70	14.80			5.00			29.10				403.27
				7.00			30.00				161.85
36.61	7.12			42.00			27.50				507.83
	11.36			48.50			54.00				278.50
4.00	154.95	43.25		20.00			77.39				808.55
	15.00		1.50	6.00	47.75		98.95				1,263.80
25.00			12.00				29.98				631.61
	49.00		20.00	15.00		15.00	32.65				465.78
	12.25	40.19		12.50	43.00		50.88				520.35
5.00				5.00			51.89				947.27
		20.00	17.00				39.00				869.66
				10.00			19.49				148.15
				8.00			51.18				271.69
1,246.85	74.25	75.00	.15	7.50	9.00		61.80				606.47
	6.80	15.00		14.50			39.00				2,820.05
			6.25				55.80				320.80
14.37	10.00			7.50			30.19				158.35
							43.20				380.97
											154.70
40.40	42.50			25.00			36.25				85.00
	24.80			21.25	8.00		47.83				1,302.80
16.00	25.00	131.00		8.00			34.87				443.92
10.00		15.00	50.00	34.99			19.48				

A.—Statement of disbursements of appropriation for national cemeteries

Name of cemetery.	Employees.	Tools, stores, and miscellaneous expenditures.	Improvement of grounds.	Inclosures.			Lodges.	
				Construction.	Repair.	Gates.	Construction.	Repair.
Saint Augustine, Fla.....	\$78.00							
Staunton, Va.....	54.75	\$8.87	\$35.34		10.00			
Stone River, Tenn.....	428.00	20.50	75.00					\$96.00
Vicksburg, Miss.....	3,360.00	521.75	443.50		145.00			20.00
Wilmington, N. C.....	96.25	42.17	50.75					146.57
Winchester, Va.....	207.00	58.07	64.80					5.81
Woodlawn (Elmyra), N. Y.....	200.13		180.75	\$300.90				
Yorktown, Va.....	60.00	11.86	12.00					
Soldiers' lots.....	180.50	1.10	75.50		\$87.00			
Miscellaneous.....		1,609.34						
Head-stones.....								
Total.....	38,117.09	7,336.11	9,168.75	300.90	9,465.78	\$455.68		5,046.02

during the fiscal year ending June 30, 1888—Continued.

Outhouses (sheds, stables, etc.).	Trees, plants, etc.	Drainage.	Barrack and office furniture.	Flag-staffs and monuments.	Water supply.	Interments.	Fuel.	Rent of quarters.	Advertising.	Lawn-movers.	Total.
	\$5.50			\$8.00	\$4.75		\$36.00				\$78.00
\$0.70				70.00			42.50				161.21
115.00	50.00	\$125.00		10.00		\$10.10	96.00				732.70
	16.80				3.96		46.05				4,896.35
							65.02				402.55
		77.56		32.79							400.70
							35.76				801.13
	62.50			35.00							119.62
									\$26.40	\$1,353.97	441.60
											2,949.71
											5,716.82
11,706.51	1,326.45	1,935.99	\$320.69	934.25	2,711.03	37.60	2,778.13	\$90.70	26.40	1,353.97	98,828.87

**REPORT OF THE COMMISSARY-GENERAL OF
SUBSISTENCE.**

REPORT

OF THE

COMMISSARY-GENERAL OF SUBSISTENCE.

WAR DEPARTMENT,
OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
Washington, D. C., October 10, 1888.

SIR: I have the honor to submit the following report of the operations of the Subsistence Department for the fiscal year ending June 30, 1888:

RESOURCES AND EXPENDITURES.

The following statement exhibits the aggregate fiscal resources and expenditures of the Department for the year mentioned, and the balances at the close of the fiscal year:

RESOURCES.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1887, as follows:

Subsistence of the Army, 1886.....	\$352,246.34
Signal Service subsistence, 1886.....	16,893.54
Subsistence of the Army, 1887.....	18,712.75
Signal Service subsistence, 1887.....	269.38
Commutation of rations to prisoners of war in rebel States, and soldiers on furlough prior to July 1, 1883, act August 4, 1886.....	18.25

\$388,140.26

Amounts to the credit of officers of the Subsistence Department, and of officers doing duty in the Subsistence Department, with the Treasurer, assistant treasurers, and designated depositaries, and in their personal possession, on June 30, 1-87, as follows:

Subsistence of the Army, 1887.....	\$354,339.99
Signal Service subsistence, 1887.....	10,684.60

365,024.59

Amounts refunded to the Treasury near the close of fiscal year 1887, but not carried to the credit of the appropriations by June 30, 1887, since covered in, as follows:

Subsistence of the Army, 1885 and prior years.....	\$141.87
Subsistence of the Army, 1886.....	58.48
Subsistence of the Army, 1887.....	4,216.70

4,417.05

Amounts appropriated for the Subsistence Department for the fiscal year ending June 30, 1888, as follows:

Subsistence of the Army, 1888, act of February 9, 1887..	\$1,745,000.00
Signal Service subsistence, 1888, act of March 3, 1887..	148,000.00
Commutation of rations to prisoners of war in rebel States, and to soldiers on furlough, prior to July 1, 1885, acts February 1, 1888, \$19,559.44 and March 30, 1888, \$26,736.40; total.....	46,295.84

Amounts appropriated for the Subsistence Department, etc.—Cont'd.

Subsistence of the Army, 1885 and prior years, acts of February 1, 1888, §3,257.43, and March 30, 1888, §1,151.45; total	\$4,408.88
Twenty per centum additional compensation prior to July 1, 1885, act of March 30, 1888	168.66
Signal Service subsistence, 1885, and prior years	354.00
	<u>\$1,944,227.38</u>

Amounts collected from various sources and refunded to the appropriations of the Subsistence Department on the books of the Treasury during the fiscal year 1888, as follows:

Subsistence of the Army, 1885 and prior years	\$1,722.30
Subsistence of the Army, 1885 and prior years, transfer account	3,302.04
Subsistence of the Army, 1886	5,138.88
Subsistence of the Army, 1887	2,509.52
Subsistence of the Army, 1888	10,178.19
	<u>22,850.93</u>

Amounts collected from various sources during the fiscal year 1888, in process of cover into the appropriations of the Subsistence Department on June 30, 1888, as follows:

Subsistence of the Army, 1887	35.20
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Amounts received by officers of the Subsistence Department, and by officers doing duty in the Subsistence Department, from sales of subsistence stores to the following purchasers during the fiscal year 1888, and taken up for immediate disbursement under the following appropriations:

Subsistence of the Army, 1887: Sales to officers and enlisted men not previously reported	\$297.90
Subsistence of the Army, 1888: Sales to officers, \$372,818.22; to enlisted men and to companies, detachments, and hospitals, \$430,521.80; to civil employes, \$12,327.79; to Leavenworth military prison, \$22,557.31; to U. S. Geological Survey, \$293.58; to United States surveyor, \$3.67; to Quartermaster's Department, \$200.83; to headquarters of the Army, \$5.57; to Indian agents, \$1,060.55; of surplus and condemned stores and property at auction, \$1,515.53; of boxes, barrels, etc., \$158.84; of garden seeds and agricultural implements, \$106.80; miscellaneous, \$6.14; total	841,576.76
	<u>841,874.68</u>

Amounts taken up by officers doing duty in the Subsistence Department on account of reclamations for stores lost, damaged, etc., and in correction of errors in their accounts, etc., during the fiscal year 1888:

Subsistence of the Army, 1887	\$67.51
Subsistence of the Army, 1888	845.87
	<u>913.38</u>

Amounts in hands of representatives of deceased officers to be collected:

Subsistence of the Army, 1878	\$109.84
Subsistence of the Army, 1882	248.63
Subsistence of the Army, 1883	70.95
	<u>429.42</u>

Amounts charged against deceased, resigned, and dismissed officers, on account of funds alleged to have been lost by theft, etc., as follows:

Subsistence of the Army, 1879 and prior years	3,000.89
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Amounts charged against officers still in service refunded during the year, as follows:

Subsistence of the Army, 1885 (1881) and prior years ..	\$2,783.00
Subsistence of the Army, 1885 (1883) and prior years ..	109.16
	<u>2,892.16</u>

Amounts charged against officers still in service on account of funds and stores alleged to have been lost by theft, etc., and for which relief can only be obtained in the Court of Claims, under sections 1059 and 1062, Revised Statutes, as follows:

Subsistence of the Army, 1879 and prior years	\$549.71
Subsistence of the Army, 1880	393.96
Subsistence of the Army, 1882	39.18
Subsistence of the Army, 1886	2,598.57
	<u>3,581.42</u>

Total resources.....\$3,577,387.36

EXPENDITURES.

Amounts expended on the books of the Treasury from the appropriations of the Subsistence Department during the fiscal year 1888, as follows:

Twenty per cent. additional compensation prior to July 1, 1883.....	\$168.66	
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough prior to July 1, 1883, act August 4, 1886	18.25	
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888.....	51.25	
Signal Service subsistence, 1885 and prior years	354.00	
Subsistence of the Army, 1885 and prior years	4,608.88	
Subsistence of the Army, 1885 and prior years, transfer account.....	513.68	
Subsistence of the Army, 1886.....	3,792.13	
Subsistence of the Army, 1887.....	93.12	
Signal Service subsistence, 1887	15.50	
Subsistence of the Army, 1888.....	112.50	
Signal Service subsistence, 1888	32.00	
		\$9,759.97

Amounts disbursed by officers of the Subsistence Department and officers doing duty in the Subsistence Department during the fiscal year 1888, as follows:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888.....	\$24,668.13	
Subsistence of the Army, 1887.....	160,772.30	
Signal Service subsistence, 1887.....	7,067.75	
Subsistence of the Army, 1888.....	2,263,377.39	
Signal Service subsistence, 1888	95,563.25	
		2,551,448.82

Amounts dropped by officers doing duty in the Subsistence Department in correction of errors in their accounts during the fiscal year 1888:

Subsistence of the Army, 1887	\$2.23	
Subsistence of the Army, 1888.....	154.60	
		156.83

Amount charged against officer still in service, removed by act of Congress (Private act No. 24, approved April 5, 1888):

Subsistence of the Army, 1879 and prior years	172.52
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Amounts transferred from Subsistence Department for disbursement hereafter under the direction of the Chief Signal Officer of the Army (G. O. No. 14, Hqs. Army, 1888):

Signal Service subsistence, 1887.....	\$3,870.73	
Signal Service subsistence, 1888	52,404.75	
		56,275.48

Amounts transferred on books of Treasury, act March 3, 1875 (18 Stat. L., 418):

Subsistence of the Army, 1885 and prior years, transfer account...	2,788.36
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Amounts carried to the surplus fund on June 30, 1888:

Subsistence of the Army, 1885 and prior years.....	\$4,556.33	
Subsistence of the Army, 1886	353,651.57	
Signal Service subsistence, 1886	16,893.54	
		375,101.44

Total expenditures.....\$2,995,703.42

BALANCES.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1888, as follows:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888.....	\$512.44	
Subsistence of the Army, 1887.....	217,053.80	
Subsistence of the Army, 1888.....	21,165.69	
		238,731.93

Amounts to the credit of officers of the Subsistence Department, and of officers doing duty in the Subsistence Department, with the Treasurer, assistant treasurers, and designated depositaries, and in their personal possession, on June 30, 1888, as follows:

Commutation of rations to prisoners of war in rebel States and soldiers on furlough prior to July 1, 1885, acts February 1 and March 30, 1888.....	\$21,064.02	
Subsistence of the Army, 1887.....	2,222.92	
Subsistence of the Army, 1888.....	310,095.03	
		\$333,381.97

Amounts refunded to the Treasury near close of fiscal year 1888, but not carried to the credit of the appropriations by June 30, 1888, as follows:

Subsistence of the Army, 1887.....	\$35.20	
Subsistence of the Army, 1888.....	2,695.63	
		2,730.83

Amounts in hands of representatives of deceased officers, to be collected:

Subsistence of the Army, 1878.....	\$109.84	
Subsistence of the Army, 1882.....	248.63	
Subsistence of the Army, 1883.....	70.95	
		429.42

Amounts charged against officers (deceased and resigned) on account of funds alleged to have been lost by theft, etc., as follows:

Subsistence of the Army, 1879 and prior years.....		3,000.89
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Amounts charged against officers still in service on account of funds and stores alleged to have been lost by theft, etc., and for which relief can only be obtained in the Court of Claims, under sections 1059 and 1062, Revised Statutes, as follows:

Subsistence of the Army, 1879 and prior years.....	\$377.19	
Subsistence of the Army, 1880.....	393.96	
Subsistence of the Army, 1882.....	39.18	
Subsistence of the Army, 1886.....	2,598.57	
		3,408.90

Total balances..... **\$581,683.94**

Statement of the average contract prices per pound (independent of quantities purchased) in each State and Territory, for the fresh beef supply of the Army, in the fiscal years 1888 and 1889.

State or Territory.	Average price per pound.		State or Territory.	Average price per pound.	
	1888.	1889.		1888.	1889.
	<i>Cents.</i>	<i>Cents.</i>		<i>Cents.</i>	<i>Cents.</i>
Maine.....	8.50	10.50	Alabama.....	7.68	4.45
Massachusetts.....	8.61	8.25	Louisiana.....	8.63	7.75
Rhode Island.....	10.60	8.87	Arkansas.....	5.99	6.40
Connecticut.....	8.00	10.00	Texas.....	6.16	5.07
New York.....	9.26	8.52	Kentucky.....	11.00	11.00
Pennsylvania.....	11.50	11.25	Ohio.....	5.85	6.65
Maryland.....	7.00	9.50	Indiana.....	7.45	7.20
District of Columbia.....	10.07	6.40	Colorado.....	8.06	6.67
Virginia.....	5.24	5.64	Utah.....	7.20	8.37
Illinois.....	6.95	6.15	Montana.....	8.32	7.76
Michigan.....	9.25	8.88	California.....	6.71	8.51
Missouri.....	6.14	5.40	Arizona.....	8.92	8.47
Minnesota.....	5.51	5.70	Washington.....	7.27	7.69
Nebraska.....	6.99	6.34	Idaho.....	8.25	6.47
Kansas.....	5.95	5.72	Nevada.....	15.00	16.00
Indian Territory.....	6.62	6.05	Oregon.....	8.25	6.98
Wyoming.....	9.11	8.14	Florida.....	13.37	11.63
Dakota.....	7.85	6.02			
New Mexico.....	6.22	6.43			
Georgia.....	9.00	10.50	Average price.....	8.16	7.90

During the fiscal year ended June 30, 1888, 299 newspaper advertisements and 335 circulars and posters inviting proposals for subsistence supplies were reported to this office. There were also reported 2,037 contracts of various kinds for fresh meats, complete rations, and other supplies required for the subsistence of the Army.

ISSUES TO INDIANS.

Subsistence supplies were issued to Indians during the fiscal year ended June 30, 1888, as follows:

Destitute Hualpai Indians, on request of Interior Department.....	\$6,361.29
Destitute British Cree Indians on Dupuyer's Creek, near Fort Assiniboine, Mont., on request of Interior Department.....	2,150.25
Destitute Piute Indians at Fort McDermit, Nev., on request of Interior Department	2,769.38
Chiricahua Indian prisoners of war, at Fort Barrancas, Fla., and Mount Vernon Barracks, Ala.....	18,366.34
White Mountain Indian prisoners of war, at Fort Apache, Ariz.....	302.73
Indian prisoners of various tribes, and at different posts.....	403.42
Indians visiting military posts under A. R. 2182 and 2183.....	504.46
	<hr/> \$30,857.87

The money value of the issues to the Hualpais, Crees, and Piutes, above reported, amounting to \$11,280.92, has been re-imbursed by the Interior Department to the appropriation Subsistence of the Army, 1888.

MISCELLANEOUS ISSUES AND EXPENDITURES.

Issues were made during the fiscal year ended June 30, 1888, under orders from commanding officers, as follows:

	Rations.
To citizen prisoners.....	80
To destitute citizens.....	394
To United States marines.....	5

The disbursements for liquid coffee for enlisted men traveling by cars, stages, etc., amount \$9,027.82, an increase over previous fiscal year of \$1,014.38.

For extra duty pay of enlisted men detailed for duty in the Subsistence Department, at the different military posts, the sum of \$20,980.10 was expended, being an increase of \$641.68 over the amount expended for like purpose in previous fiscal year.

For advertising the sum of \$11,073.28 was disbursed, a decrease from previous fiscal year of \$820.54.

For cooked rations for recruiting parties and recruits the expenditure was \$48,625.55, an excess of \$6,963.80 over the amount expended for a like purpose in previous fiscal year.

LOSSES OF STORES AND PROPERTY.

The value of stores reported lost in the fiscal year, by accident, wastage in transportation, and while in store, etc., for which no one has been held accountable, was \$14,429.64.

Included in the above sum of \$14,429.64 are the following special items of loss of stores:

Where reported.	Cause of loss, per report.	When reported.	Value.
Fort Assiniboine, Mont.	By sinking of steamer <i>Eclipse</i>	July, 1887.....	\$14.08
Fort McDowell, Ariz.....	By rotting.....	October, 1887.....	82.55
Fort Mojave, Ariz.....	By sinking in river.....	December, 1887.....	11.00
Fort McKinney, Wyo.....	By fire.....	January, 1888.....	8,951.49
Camp Del Rio, Tex.....	By flood.....	April, 1888.....	22.25
Fort Robinson, Nebr.....	By breaking of bridge on White River.....	June, 1888.....	28.80
In the field, near Omaha....	By sinking of steamer <i>General Terry</i>	June, 1888.....	97.50
At sundry posts.....	By bursting of barrels.....	July, 1887, March and June, 1888.....	20.10
			<hr/> \$9,257.27

Stores lost during fiscal year in transportation and responsibility fixed	
amounted to	\$731. 00
Of this amount there has been collected	251. 12
Balance to be collected	<u>\$479. 88</u>

STORES INSPECTED AND CONDEMNED.

Original cost of the subsistence stores inspected and condemned during	
fiscal year 1888	\$10, 536. 00
From such as were ordered sold there was realized the sum of	1, 297. 08
Net loss on account of condemned stores	<u>\$9, 298. 92</u>

From sales of condemned subsistence property there was realized the sum of \$58.70.

SUBSISTENCE SUPPLIES.

Subsistence supplies for the Army are purchased as near the points of consumption as practicable, regard being had to their quality and prices as compared with those of the same articles at the principal purchasing stations at the great markets of the country, and also to the cost of transportation from place of purchase to place of issue. The supplies procured have, as usual, been of excellent quality, fully up to the standard, and very rarely has any complaint thereof been received from any quarter.

Suggestions have occasionally been received from officers in regard to modifying or increasing the soldier's ration; some to the effect that barreled pork should be excluded and bacon substituted; some that the flour ration should be increased; and others that fresh vegetables should be added; but, all things considered, I do not think that any change in the ration is now required or advisable, as, beyond question, it is at least equal to that of any army in the world, and one that is admirably suited to our service. The experience of many years in peace and war, as well as experiments carefully made, has demonstrated that the full army ration is ample, provided the soldier gets the benefit of the whole of it. Under the regulations, however, the flour component has been made tributary to the post fund to the extent of about one-third the flour issued, and the other components of the ration to the company fund.

The proceeds of sales of the savings of parts of the ration constitute the company fund, and this fund I regard as a most excellent and readily-applied means of increasing to any necessary extent the variety of the soldier's food. Unfortunately, however, its expenditure has not been limited to the procurement of articles of food, but it is often expended for other purposes. I believe that the ration would be found entirely satisfactory if the recommendations heretofore made were adopted, viz: that no part of the savings from the ration should go to the post fund, but all to the company fund, and that no part of the savings on the ration should be expended for post schools, libraries, gymnasiums, chapels, or for any purpose or articles whatever other than articles of food; in other words, that the soldier should receive the whole of his ration, or the product of its barter, in the shape of food.

In my report for the year 1881 there was published a valuable report, made by Surgeon Joseph R. Smith, U. S. Army, on the subject of "The Ration and the Post and Company Funds," based on the actual issues made to troops in the Department of Texas, savings of the post baker-

ies, and on statistics of the company funds of the seventy-eight companies in that Department for an average period of seventeen months. I have recently received a copy of his paper read before the Ninth International Medical Congress in September, 1887, on "The Best Ration for the Soldier," which is hereto appended as part of this report, as it bears directly upon the question of army subsistence and is an interesting and most valuable paper supplementary to his article on "The Army Ration and the Post and Company Funds," above referred to, as published in my report for 1881.

ARMY COOKS AND BAKERS.

The proper cooking of their food is such an absolute necessity for the health and efficiency of the troops, that I renew the recommendations made in several of my previous reports, that Congress be urged to provide for the enlistment of a cook to each troop, battery, and company, and to each general depot of recruits, and of a baker to each garrisoned post. This would add but little to the expense, while it would add greatly to the health and comfort of the men, and consequently to the efficiency of the Army.

Under the present system, men are from time to time detailed from the companies to perform these duties, and, owing to the temporary nature of the employment and their inexperience in that sort of work, they cannot be expected to take much interest in it or to do it properly. The natural result is that articles of the ration of excellent quality are often transformed into absolutely unwholesome food by bad cooking and baking, to the injury of the men and loss to the Government. With one good cook to each company others would soon learn something of the art from him, so that, whether in garrison or in the field, the company mess could always be supplied with good wholesomely-prepared food.

I do not favor large and expensive cooking establishments at military posts, but believe that each company should do its own cooking, and that the company messes, as they now exist, should be continued, and that it would not be wise to substitute for them post messes, where the cooking would be done on so large and different a scale that it would all have to be changed in time of war or in field service. The company mess in garrison is, and should be, a school preparatory to the field mess, while a large and expensive post mess would be preparatory to no other, but would take away the important school and training inherent in the company mess.

COMMISSARY SERGEANTS.

Number of commissary sergeants in service at the commencement of the last fiscal year	117
During the year the following casualties occurred:	
Deserted.....	1
Died.....	2
	— 3
	114
Appointed during the year	10
Total in service June 30, 1888.....	124

By General Orders No. 98, Headquarters of the Army, 1884, the number of commissary sergeants was limited to 120, but owing to urgent and pressing demands for additional sergeants to supply newly-estab-

lished posts, the Secretary of War authorized the appointment of 5 during the fiscal year, thereby increasing the number to 125.

CLERICAL WORK OF THE OFFICE OF THE COMMISSARY-GENERAL OF SUBSISTENCE.

MISCELLANEOUS DIVISION.

There were received, briefed, recorded, and indexed in this division of the office during the year 2,614 communications. There were recorded and sent out during the same time 1,935 letters and 1,085 indorsements.

ACCOUNTS AND RETURNS DIVISION.

Accounts and returns on hand June 30, 1887, received, examined, etc., during the fiscal year ended June 30, 1888.

Accounts current on hand June 30, 1887.....	344	
Received during the year.....	2,300	
	<hr/>	2,644
Returns of subsistence stores on hand June 30, 1887.....	302	
Received during the year.....	1,856	
	<hr/>	2,158
Returns of subsistence property on hand June 30, 1887.....	18	
Received during the year.....	812	
	<hr/>	830
Examined during year ended June 30, 1888:		
Accounts current (accompanied by 39,046 vouchers).....	2,436	
Returns of subsistence stores (accompanied by 32,950 vouchers).....	2,006	
Returns of subsistence property (accompanied by 2,162 vouchers).....	823	
On hand June 30, 1888, awaiting examination:		
Accounts current.....	208	
Returns of subsistence stores.....	152	
Returns of subsistence property.....	7	

The accounts and returns received during the year were rendered by 465 officers.

In connection with the examination of above accounts and returns, letters and indorsements to the number of 7,389 were written and recorded and 191 papers copied.

Certificates of non-indebtedness to the number of 3,355 were issued.

Certificates of services as acting commissaries of subsistence to the number of 320 were furnished.

CONTRACT DIVISION.

During the fiscal year 2,690 communications were received and recorded in the contract division and 1,869 letters and indorsements sent out.

CLAIMS DIVISION.

Act of July 4, 1864. (Sec. 300 B., R. S.)—At the beginning of the fiscal year ended June 30, 1888, there were 7 claims on file in this office awaiting examination under the third section of the act of July 4, 1864, and the acts and joint resolutions supplementary thereto, and 9 more were received during the year from the Third Auditor of the Treasury.

Formal decisions were rendered during this period in 16 claims, of which 3, amounting to \$280.34, were allowed in the sum of \$225.89, and recommended to the Third Auditor of the Treasury for payment; and 13, amounting to \$10,525.45, were disallowed.

Joint resolution of July 25, 1866, and third section of act of March 2, 1867.—At the beginning of the fiscal year there were on file in this office

1,177 claims for commutation of rations of Union soldiers while held as prisoners of war, and during the year 1,205 more were received, making a total of 2,382 claims of this class for examination.

Of these 1,056 were examined and transmitted to the Third Auditor of the Treasury, 541 recommended for disallowance, and 515, amounting to \$11,280.50, for payment.

In addition, 1,139 old claims were re-examined and transmitted to the Third Auditor of the Treasury, of which 1,098 were recommended for disallowance, and 41, amounting to \$909.50, for payment.

Miscellaneous claims.—There were at the commencement of the fiscal year 517 miscellaneous claims on hand, and during the year 536 more were received, making a total of 1,053 claims of this class for examination.

Of these 470 were examined and transmitted to the Third Auditor of the Treasury, 304 recommended for disallowance, and 166, amounting to \$9,778.04, for payment.

In addition, 376 old claims were re-examined and transmitted to the Third Auditor of the Treasury, of which 344 were recommended for disallowance, and 32, amounting to \$595.25, for payment.

Letters and indorsements.—In connection with these three classes of claims mentioned, 13,599 communications were sent out during the year.

DUTIES AND STATIONS OF OFFICERS OF THE SUBSISTENCE DEPARTMENT.

The duties and stations of officers of the Subsistence Department on the 30th day of June, 1888, will appear from the roster hereto appended.

During the year the officers of the Department have been actively employed, and have performed their duties with their accustomed zeal, fidelity, and efficiency.

Very respectfully, your obedient servant,

R. MACFEELY,
Commissary-General of Subsistence.

The SECRETARY OF WAR.

Roster of the Subsistence Department, U. S. Army, June 30, 1888.

Name and rank in the department.	Rank by brevet.	Duty and station.
COMMISSARY-GENERAL OF SUBSISTENCE.		
<i>Brigadier-General.</i>		
Robert Macfeely .....	.....	Commissary-General of Subsistence—Washington D. C.
ASSISTANT COMMISSARIES-GENERAL OF SUBSISTENCE.		
<i>Colonels.</i>		
Marcus D. L. Simpson	Bvt. Maj. Gen., Mar. 13, 1863.	Chief C. S. Div. of the Missouri—Chicago, Ill.
William W. Burns	Bvt. Brig. Gen., Mar. 13, 1865.	Chief C. S. Div. of the Atlantic and Dept. of the East— Governor's Island, New York, N. Y.
<i>Lieutenant-Colonels.</i>		
Amos Beckwith	Bvt. Maj. Gen., Mar. 13, 1865.	Purchasing and Depot C. S. at St. Louis, Mo.
Beekman Du Barry	Bvt. Col., Mar. 13, 1865.	Assistant to the Commissary-General of Subsistence— Washington, D. C.
George Bell	Bvt. Brig. Gen., Apr. 9, 1865.	Purchasing and Depot C. S. at New York City, N. Y.
COMMISSARIES OF SUBSISTENCE.		
<i>Majors.</i>		
Michael R. Morgan	Bvt. Brig. Gen., Apr. 8, 1865.	Chief C. S. Div. of the Pacific, and Dept. of California— San Francisco, Cal.
John P. Hawkins	Bvt. Maj. Gen., Mar. 13, 1865.	Purchasing and Depot C. S. at Boston, Mass.
Michael P. Small	Bvt. Brig. Gen., Apr. 9, 1865.	Purchasing and Depot C. S. at Baltimore, Md.
Thomas C. Sullivan	Bvt. Lt. Col., Mar. 13, 1865.	Chief C. S. Dept. of Dakota, and Purchasing and Depot C. S. at St. Paul, Minn.
John W. Barriger	Bvt. Brig. Gen., Mar. 13, 1865.	Chief C. S. Dept. of the Platte, and Purchasing and De- pot C. S. at Omaha, Nebr.
Thomas Wilson	Bvt. Brig. Gen., Mar. 13, 1865.	Purchasing and Depot C. S. at Chicago, Ill.
William H. Bell .....	.....	Purchasing C. S. at Denver, Col.
Jeremiah H. Gilman	Bvt. Lt. Col., Dec. 31, 1862.	Assistant to the Commissary-General of Subsistence— Washington, D. C.
<i>Captains.</i>		
Samuel T. Cushing	Bvt. Maj., Mar. 13, 1865.	Chief C. S. Dept. of Texas, and Purchasing and Depot C. S. at San Antonio, Texas.
William A. Elderkin	Bvt. Maj., Mar. 13, 1865.	Purchasing and Depot C. S. Newport Barracks, Newport, Ky.
Charles B. Penrose	Bvt. Lt. Col., Nov. 11, 1867.	Chief C. S. Dept. of the Missouri, and Purchasing and Depot C. S. at Fort Leavenworth, Kans.
William H. Nash	Bvt. Maj., Nov. 17, 1865.	Purchasing and Depot C. S. at New Orleans, La.
Charles P. Eagan .....	.....	Purchasing and Depot C. S. at San Francisco, Cal.
Fred. F. Whitehead	Bvt. Maj., Mar. 2, 1867.	Purchasing and Depot C. S. at Washington, D. C.
John F. Weston .....	.....	Chief C. S. Dept. of Arizona—Los Angeles, Cal.
Charles A. Woodruff .....	.....	Chief C. S. Dept. of the Columbia, and Purchasing and Depot C. S. Vancouver Barracks, Wash. Ty.
John J. Clague .....	.....	Chief C. S. District of New Mexico, and Post C. S. at Fort Marcy, N. M.—Santa Fé, N. M.
Wells Willard .....	.....	Purchasing and Depot C. S. at Cheyenne, Wyo. Ty.
Henry G. Sharpe .....	.....	Post C. S. West Point, N. Y.
Frank E. Nye .....	.....	Depot and Post C. S. Fort Monroe, Va.

ON THE BEST RATION FOR THE SOLDIER.*

[De la meilleure ration pour le soldat.—Ueber die beste Ration des Soldaten.]

BY JOSEPH R. SMITH, A. M., M. D.,

Brevet-Colonel, Lieutenant-Colonel and Surgeon, U. S. Army.

Fuel in relation to the steam-engine and food in relation to man are largely analogous. The least amount of fuel burned in the engine and the largest amount of mechanical work produced therefrom are capable of exact measurement, and the experiment of determining these is not difficult to perform. But the smallest amount of food in a man necessary to produce the best results in work is scarcely capable of such exact determination, owing to the complexity of the experiments needed to determine the question.

Experiments have been tried in this direction with surprising diversity of results, and the personal equations of different observers have only added their effects to the imperfections of ultimate analysis.

To these difficulties in the way of absolutely accurate experimental results must be added others less easy to surmount, because inherent in the subjects of the experiment, *i. e.*, food the fuel, and man the machine.

Different specimens of the same kind of food vary in their chemical composition and nutritive value. Bacon varies in the amount of water contained in equal weights, as well as in the relative proportion of fat, etc. Different specimens of flour vary in the proportion of every one of its constituents. In the analysis of flour by Peligot, the proportions of fat present so differed, that in one specimen it very nearly doubled that in another.

The ultimate composition of the *proximate* principles equally varies, so that different specimens of the same fat are far from yielding the same amount of carbon.

Then, even were the exact value of the food determined, different individuals do not daily require the same amount of food, and the same individual on different days (owing to causes well known to you, and too numerous to mention here) requires different amounts of food.

If it is attempted to measure the need of food by the appetite, it is early apparent that one is not the measure of the other, and that their relations are uncertain. The glutton eats for the love of eating, and one person will starve on what amply nourishes another.

The *weight* of the body is equally worthless as a standard by which to measure the amount of food needed. In daily observations, persons of small weight will often be greater eaters than persons of great weight. Under directions of the writer, observations were made for six months on a mess of thirteen adult males of greatly differing weights. At the close of the experiment, the author found it impossible to discover any dependence of the amount of food eaten on the weight of the body.

So, too, the *composition* of the human body gives no clue to the amounts or proportions needed of the different kinds of food. The average body contains, by weight, not far from 18 per cent. of proteine compounds, about 15 or 16 per cent. of fat, and but seven-tenths of 1 per cent. of carbo-hydrates. Yet, experience has proven that our daily food must contain several times as much of the carbo-hydrates as of fat and proteines combined.

It has been attempted to use the *work* done by the body as a measure of the food needed. The difficulty of determining with accuracy the work done by and in the body seems impossible. Take the simplest case, where the work to be measured is the movement of the body in walking for a day. A day's march can not be made exactly in the shortest, straightest line from place to place; nor in an ordinary march is it possible to tell the exact distance covered. The soldier will always vary from the line—will always make excursions of one kind or other—to the well, the bar-room, or a seat in the shade of a tree. If these variations and excursions only amount to half a mile in the day's march—if the walker weighs 150 pounds, and his accoutre-

*Read before the Ninth International Medical Congress, September, 1887.

ments, etc., 60 pounds, and the co-efficient of traction be one-twentieth the weight—we have the equations $\left(\frac{150+60}{20}\right) \times 2640 = 27,720$ representing the uncertain element—the foot pounds—of work done, in going the extra half mile.

A difference, not very great, in the weight carried, makes also considerable difference in the work done, and this difference may occur in such a way as to defy the forethought of the experimenter. In a hot, sultry day, a man may, without great difficulty, lose 3 pounds weight, by the skin, in the first hour of his march. In a 20-mile march the difference in foot pounds of work done, between carrying the weight of his body 20 miles, and the carrying of the full weight 2 miles, plus the weight less 3 pounds for 18 miles of the 20, would equal 14,256 foot pounds of labor not calculated on beforehand.

To this add the indefiniteness of our knowledge of the exact amount of work performed in mental operations, in the movement of the heart and intestines and other internal actions in the body. From investigations, principally by Donders, it appears that at each heart-beat of the average man, an amount of work is done equal to that which would lift 4.63 pounds 1 foot, while a respiratory act equals in work 4.56 foot pounds. So a heart beating 80 times a minute for twenty-four hours would do work equal to 533,376 foot pounds. A consideration of these investigations shows how difficult, nay, impossible it is to avoid a slight error, and yet an error of only the one-hundredth of a pound, thus multiplied, would equal 1,152 foot pounds in twenty-four hours, an amount of work representing considerable food. Is it not clear that any estimate of food needed, based on this work done, must be lacking in precision?

The amount of food needed can not be deduced from those effects of eating that are quickly apparent and easily appreciated.

The effects of the entire absence of food are prompt and easily recognized. Not so the effects of an allowance of food *slightly* insufficient. Both under-feeding and over-feeding, in *slight* degree, may continue for long periods of time, and produce effects difficult, if not impossible, to trace to their cause.

It has been sought to ascertain the amount of food required, from the excreta. Putting aside the difficulties of merely collecting and accurately measuring the excreta of the lungs, skin, etc., yet, when determined exactly, the excreta are not logically the measure of the food *needed*, but rather of the food that has been taken into the body, whether more or less than the amount actually needed. All the food that enters and passes through the body is not assimilated, nor does it all serve as nourishment.

Rigorously exact experiments in feeding large bodies of men have never been made, and in the experiments in our hands, namely, the feeding of armies and reformatory institutions, the principal errors are, that the *exact* amount of food issued as rations is not known; that the *precise* number of persons eating is not known; that food is procured from external sources other than the rations; and that large waste and surplus exists; the food is unaccounted for.

Considering the foregoing elements of uncertainty entering into the solution of the problem, notwithstanding the numerous "tables of quantity of food needed daily by a man," published all over the world, apparently precise to a grain, I submit that we do not yet know what is the exact or smallest amount of food needed to sustain a healthy man in his good health in all the differing circumstances of rest and work.

If, then, without precise accurate knowledge on the subject, what approximate knowledge do we possess that we may act on in trying to supply an army with the food the best for it?

By general experience and individual experiment we have discovered a *certain amount of food* which will sustain an average individual in good health; and also that *much less than this* will *not* suffice, though we do not know that a *little less would not* suffice. We have discovered, too, that certain combinations and proportions of different foods are best in the larger number of cases.

As large numbers of men are involved in these experiments, the application of "averages" comes to our aid, viz, that property of the "average" in virtue of which, from a large number of specific cases, every one inaccurate in different directions, an idea may be deduced which is very near, indeed, to accuracy.

I proceed to give the amounts of food necessary to sustain in health and strength an adult male for twenty-four hours, as determined theoretically and (by experience) practically by different parties.

TABLE I.—Amount of food required per man per day, as determined in actual trial.

	Average.	Total solid food.	
1. By Prof. J. C. Dalton:	<i>Ounces.</i>	<i>Ounces.</i>	
Fresh meat.....	16	38.5	For a "man in full health and taking free exercise in the open air."
Bread.....	19		
Butter or fat.....	3.5		
2. Typical ration of English army:			
Meat.....	16	46 136	Lime juice at discretion of the general officer commanding, on the recommendation of the medical officer.
Bread.....	20		
Or biscuit.....	16		
Vegetables, fresh.....	8		
Or vegetables, preserved.....	2		
Or rice or peas.....	2		
Sugar.....	2		
Tea.....	$\frac{1}{2}$		
Coffee.....	$\frac{1}{2}$		
Salt.....	$\frac{1}{2}$		
Pepper.....	$\frac{1}{2}$		
Lime juice (when fresh vegetables are not issued).....	1		
Rum ($\frac{1}{2}$ gill).....			
3. Italian army, type B:			
Bread.....	32.378	47.015	In Nos. 3 and 4, wine, 25 centiliters; coffee, 15 grams (over $\frac{1}{2}$ oz.); and sugar, 22 grams (over $\frac{1}{2}$ oz.), should be added, being allowed.
Meat, fresh.....	5.291		
Bacon.....	.529		
Pasta (macaroni, etc.).....	7.054		
Vegetables.....	1.763		
Salt and pepper.....	.7054		
4. Italian army, type E:			
Corn meal.....	24.689	34.318	
Meat, fresh.....	5.291		
Bacon.....	.529		
Vegetables.....	2.445		
Cheese.....	1.164		
Salt and pepper.....	1.411		
5. Ration of the Army of the United States of North America:			
Pork or bacon.....	12	46.8 132	
Or fresh beef or mutton.....	20		
Or salt beef.....	22		
Soft bread or flour.....	18		
Or hard bread.....	16		
Or corn meal.....	20		
Beans or peas.....	2.4		
Or rice or hominy.....	1.6		
Coffee, green.....	1.6		
Or coffee, roasted and ground.....	1.28		
Or tea.....	.32		
Sugar.....	2.4		
Vinegar (.32 of a gill).....			
Salt.....	.64		
Pepper.....	.04		
6. Ration of the Navy of the United States of North America:			
No. 1:			
Salt pork.....	16		
Beans or peas.....	7.5		
Biscuit.....	14		
Tea.....	$\frac{1}{2}$		
Sugar.....	4		
Pickles.....	1.14		
Molasses.....	1.57		
Vinegar, ($\frac{1}{2}$ pint).....			
No. 2:			
Salt beef.....	16	48 138	
Flour.....	8		
Dried fruit.....	2		
Biscuit, tea, sugar, pickles, molasses, and vinegar, the same as in ration 1.....			
No. 3:			
Preserved meat.....	12		
Rice.....	8		
Butter.....	2		
Desiccated mixed vegetables.....	1		
Biscuit, tea, sugar, pickles, molasses, and vinegar, as in ration 1.....			

* Maximum.

Minimum

TABLE I.—Amount of food required per man per day, as determined in actual trial—Cont'd.

	Average.	Total solid food.
6. Rations of the Navy of the United States of North America—Continued.		
No. 4:	Ounces.	Ounces.
Preserved meat	12	}
Butter	2	
Decicated tomatoes	6	
Butter, tea, sugar, pickles, molasses, and vinegar, as in ration 1 .....	.....

In the above rations *fresh meat*, ounces 20, or *preserved meat*, ounces 12, may be substituted for the ration of salt pork or beef.

Soft bread or flour, ounces 16, may be substituted for *biscuit*.

Coffee, ounces 2, or *cocoa*, ounces 2, may be substituted for tea. *Rice or beans*, ounces 8, may be substituted for each other. *Vegetables of equal value* may be substituted for beans or peas in No. 1, and for flour and dried fruits in No. 2.

Canned vegetables, ounces 6, may be substituted for *decicated vegetables* in No. 3.

Canned tomatoes, ounces 6, may be substituted for *decicated* in No. 4.

The foregoing amounts of food are in avoirdupois ounces, and have undergone the test of experience.

Concerning the first, Dalton, in his work on Physiology, says: "From experiments performed while living on an exclusive diet of bread, fresh meat, and butter, with coffee and water for drink, we have found that the entire quantity of food required during twenty-four hours by a man in full health and taking free exercise in the open air is as follows: Meat, 16 ounces; bread, 19 ounces; butter or fat, 3½ ounces; water, 52 fluid ounces."

The second, third, and fourth rations are those of the British and Italian armies. I have given these, because my knowledge concerning them is precise and definite. The amounts of food are authoritative, the figures having been furnished by the authorities in Rome and London to the United States ministers resident in those cities, and by them transmitted to the State Department in Washington.

Accompanying No. 2, came the following: "On active service abroad, in the field, the ration is fixed according to the exigencies in each case, but the following scale is laid down as a guide."

The Italian authorities write, concerning 3 and 4, "It is established that for the maximum nutrition of soldiers, from 18 to 20 grams of (azote) nitrogen, and from 310 to 350 of carbon are necessary." Six types of rations used were also sent, of which I have presented type B as of the greatest weight, and type E of the least weight.

The additional remark accompanies these rations: "Of wine, 25 centiliters; of coffee, 15 grams; of sugar, 22 grams only are allowed for each day. The distribution of these things is not made daily, but the regulation determined ad minimum—100, distribution of coffee and wine per annum."

No. 5 is the ration of the U. S. Army, and No. 6 gives the four rations allowed in the U. S. Navy.

TABLE II.—*Constituents of various diets.*

		Albuminate.	Fatty.	Carbohydrates.	Salts.	Nitrogen.		Carbon.		
		Ozs.	Ozs.	Ozs.	Ozs.	Gm.	Gr.	Gm.	Gr.	
1	Moleschott	4.587	2.964	14.247	1.058	21	317	315	4,860	In ordinary work.
2	Pettenkoffer and Voit	4.83	4.12	12.40	1.06	22	333	321	4,957	Do.
3	Ranke	3.52	3.52	8.46	.89	16	243	238	3,680	Do.
4	Parkes	6	3.5	16	1.3	27	14	370	5,715	For an adult man in very laborious work, or a soldier no service and in the field.
5	.....	7	4.5	18	1.5	31	483	433	6,682	
6	Playfair	2.5	1	12	.....	11	172	211	3,257	Diet in quietude.
7	.....do.....	4.2	1.8	18.7	.....	19	290	329	5,232	Diet of adult in full health.
8	.....do.....	5.5	2.5	20	.....	25	379	391	6,029	Diet of active laborers.
9	.....do.....	6.5	2.5	20	.....	29	448	406	6,262	Diet of hard-worked laborers.
10	No. 1 of preceding table	6.041	5.042	9.348	.8135	27	41	342	5,276	Dalton's experiment.
11	No. 2 of preceding table	3.736	1.4396	12.7081	.5545	17	258	249	3,836	Ration of English army.
12	No. 3 of preceding table	3.9622	1.2689	21.5543	.5788	18	273	360	5,548	Ration of Italian army, type B.
13	No. 4 of preceding table	3.8333	3.0474	16.3812	.592	17	268	333	5,139	Ration of Italian army, type E.
14	No. 5 of preceding table	5.238	3.0624	13.608	.6952	23	361	319	5,504	Ration of United States Army.
15	.....do.....	5.708	1.0608	15.3912	3.028	26	394	304	4,686	Do.
16	No. 6 of preceding table	5.90	1.8044	20.094	.7426	26	407	383	5,912	Ration of United States Navy.
17	.....do.....	6.76	1.366	21.703	3.951	30	466	406	6,262	Do.
18	Letheby, as determined by dietaries	2.67	Ounces. 16.53		.....	12	180	247	3,816	Diet during idleness.
19	Letheby, as determined by exertions	2.78	18.47		.....	12	187	269	4,157	Do.
20	Letheby, as determined by dietaries	4.56	24.48		.....	20	307	360	5,688	Diet during routine work.
21	Letheby, as determined by exertions	4.39	19.80		.....	19	296	307	4,743	Do.
22	Letheby .....	.....	.....		.....	12	181	252	3,888	Diet for existence without suffering.
23	.....do.....	2.97	20		.....	13	200	279	4,300	"What daily food should contain."

The amount of the food principles in Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 18, 19, 20, 21, and 23, and of nitrogen and carbon in 22 and 23, are as given by the authors; but in the other cases these amounts have been calculated by the figures given in the tables of Parkes or Letheby.

As regards the beef, 17 per cent. has been deducted for bone. The proportion of bone in an issue of beef is not identical with the proportion of bone to the animal, because certain portions are excluded from issue. A few years ago, to determine the proportion of bone, I weighed the beef and bone in a number of experiments. The weight of the beef issued was 1,813 pounds 4 ounces, embraced in sixty-five separate issues, and the amount of bone was 309 pounds 3 ounces; that is, 17 per cent. In the analysis of Dr. Dalton's ration, however, this deduction was not made, as I am informed by Professor Dalton, under date of August 6, 1857, that the meat referred to in his experiment was "free from bone," and freed as much as possible from all inedible parts.

Molasses is estimated to contain two-thirds the hydrocarbon of sugar.

For reasons well known to you, only carbon and nitrogen are embraced in the results of the ultimate analysis.

The foregoing figures show a great range in the absolute and relative amounts of nitrogenous and carbonaceous food, so-called, of carbon and nitrogen, and of the food in the gross; and this without considering acknowledged excessive or deficient diet, for we are not here interested in determining how near a man may come to starving and still survive.

The form in which this food is ingested is not a matter of indifference. A certain bulk is necessary. Long-continued nutrition, by food in a very concentrated form, is invariably accompanied by many evils, among which are intestinal discomfort, constipation, and dyspepsia with its sequels. Jockeys also know that a horse will not thrive on oats or corn alone; he must also have hay in considerable quantity.

In Dalton's experiment, 32.5 ounces were eaten daily (Table I, No. 1).

The typical ration of the English army (No. 2, Table I) contains a maximum of 46 and a minimum of 36 ounces.

The U. S. Army ration (No. 5, same table) ranges from 46.8 to 32 ounces. One of its combinations (No. 14, Table II) contains:

	Ounces.
Fresh beef	20.0
Corn meal	20.0
Peas	2.4
Sugar	2.4
	<hr/> 44.8

(Coffee, vinegar, salt, and pepper, though part of the ration, are not included in this estimate of solid food.)

Another combination (No. 15, Table II) contains:

	Ounces
Salt pork	12.0
Hard bread	16.0
Rice	1.6
Sugar	2.4
	<hr/> 32.0

The Italian army ration varies between 1336 grams = 47.12 ounces, and 973 grams = 34.32 ounces. One of its combinations (No. 12, Table II) contains:

	Grams.	Ounces
Meat	150	= 5.291
Bread	918	= 32.378
Bacon	15	= 0.529
Pasta (macaroni, etc.)	200	= 7.054
Vegetables	50	= 1.763
	<hr/> 1333	= 47.015

No. 13, Table II, contains:

	Grams.	Ounces.
Meat	150	= 5.291
Corn meal	700	= 24.649
Bacon	15	= 0.529
Vegetables	75	= 2.645
Cheese	33	= 1.164
	<hr/> 973	= 34.32

This excludes salt and pepper, also sugar, of whose issue every day I am doubtful. If this be added, the amount of sugar allowed is 22 grams = 0.776 ounce.

The ration of the U. S. Navy (No. 6, Table I), ranges between 49 and 38 ounces. One of its combinations (No. 16, Table II) is composed of—

	Ounces.
Fresh beef	20
Flour	16
Peas	7.5
Sugar	4
	<hr/> 47.5

Another combination, No. 17, Table II, contains:

	Ounces.
Salt pork	16
Biscuit	14
Rice	8
Sugar	4
	<hr/> 42

With both these last rations, molasses, coffee, and pickles are issued.

It does not seem necessary to try and fix more accurately the proper bulk of a ration, for we may take it for granted that this matter will be regulated by the mere fact that, in foods in general in their crude state, the proportion of bulk to the proximate constituents demanded in a given ration is sufficiently proper, and may largely vary without injury to the consumer.

In the next place, experience has proved that in a satisfactory diet there must exist in the food taken, water, salts, nitrogenous food as proteines, and carbonaceous food as fats and carbo-hydrates. These last two are to a large extent complementary and interchangeable, and of all of them, the carbo-hydrates can best be spared.

The proportion of nitrogenous and carbonaceous food and the proportion of pure nitrogen and carbon in a given diet are not identical, inasmuch as the nitrogenous foods contain also carbon. But though the lines representing these proportions in a series of diets would not exactly coalesce, yet they are nearly parallel.

In the 22 rations in Table II, the mean proportion of the nitrogenous to the carbonaceous food is 1.000 to 4.023, the extremes being 1.000 to 2.531 in No. 10, by Dalton—and 1.000 to 6.734 in No. 23, by Letheby.

The carbo-hydrates exceeded the fats, on an average, in the proportion of nearly 6 to 1 (5.953 to 1.000). In No. 12, one of the Italian rations, this proportion was 17 to 1; and in No. 10 (Dalton's), 1.59 to 1.00.

The proportion of nitrogen to carbon for the 23 rations in Table II averages 1 to 15.9; the extremes being 1 to 11.89 in No. 15, a ration of the U. S. Army, and 1 to 22.2 in No. 19, or Letheby's diet during idleness.

The average amount of nitrogen and carbon contained in the 23 rations of Table II was 316 grains and 5,019 grains, respectively. The maximum nitrogen is formed in No. 5, one of Parkes' rations, and is 483 grains. The maximum carbon, 6,682 grains, is found in the same, No. 5.

The minimum of nitrogen, 172 grains, appears in No. 6, Playfair's diet of quietude; the minimum of carbon, 3,257 grains, is in the same No. 6.

Here it will be well to give the statement of Liebig, in his Animal Chemistry, in its application to physiology and pathology, that an adult taking moderate exercise consumes daily of carbon 13.9 ounces. This equals about 6,700 grains.

Pavy also assumes in his Treatise on Food, etc., page 424, that 300 grains of nitrogen and 4,800 grains carbon are daily required.

To aid us in our object of obtaining, as near as may be, exact figures of the amount of food needed daily by the soldier, it is manifest that the figures in Table II are not all of equal value.

The smallest amount that for a long period of time has well supported life is clearly sufficient, and the fact that larger quantities have also supported life, in no manner conflicts with the first conclusion: it does not prove that less would not have sufficed. Experience and experiments intelligently prosecuted with intent of determining the point at issue, must have their value; even what they did not prove is significant.

Bearing this in mind, let us attempt a short analysis of Table II:

1, 2, and 3 are deduced from careful experiments, none of which were carried out for a sufficiently long time to make them decisive for our purpose here. Granting that they give amounts that will support life and health in ordinary work, these are not proved to be minima; nevertheless, they are for our purpose among the most reliable experiments extant. They are near the point.

4 and 5 are from Parkes, in his own language, "determined partly by observation on a great number of dietaries, and partly by physiological experiments." They give the amount of food that will support "a man in very laborious work," and doubtless, for the author would not err on the wrong side, a surplus; for our purpose here they are valuable, as showing a limit, *under which we must seek*.

6, 7, 8, and 9 are from Playfair's lecture on "The Food of Man," page 19. No. 6 gives merely the "diet for quietude," and, therefore, for our purpose provides a minimum *above which we must seek*.

7 is the mean dietetic value of the dietaries of the English, French, Prussian, and Austrian soldiers during peace (p. 11, *op. cit.*). Concerning it, Playfair says: "It may fairly be taken as representing the value of food required to keep adult men in good health."

8 is evidently formed from the dietaries of English, French, Prussian, Austrian, Russian, Hollander, and United States soldiers during war, but in amount exceeds their mean (p. 14, *op. cit.*). Concerning 7, 8, and 9 the same remark applies as to 4 and 5; they give a maximum, *below which we must seek*.

10 gives the amount of food required in twenty-four hours by a man in health, taking free exercise. It, too, evidently gives us a maximum.

11, the ration of the English soldier, comes to me from authoritative sources, though differing from that given by Parkes in the third edition of his Hygiene. I can not tell the exact amount of experience it has been tested by, but it is fair to presume that, unless so proved, it would not have been sent us. It doubtless voices the views of the English military authorities. For our purposes, therefore, it represents a ration, from its origin entitled to be considered very near the exact limit of sufficiency.

12 and 13, like 11, are from State dispatches, nor can I tell the tests they have been put to. They were avowedly constructed to conform to a theoretical view, and forced to contain (*vide* p. 36) a maximum. For our purposes, they must be regarded as showing an amount of food below which we must seek.

14 and 15 represent the heaviest and lightest combinations of the constituents of the ration of the soldier of the United States Army. 14 contains:

Articles.*	Albuminate.		Fat.	Carb.-Hydrat.	Salts.	Nitrogen.	Carbon.
	Oz.	Ounces.	Ounces.	Ounces.	Oz.	Gr.	Gr.
Fresh beef	20	= 2.49	1.3944	.....	0.2656		
Corn meal	20	= 2.22	1.62	13.02	0.3600		
Peas	2.4	= 0.528	0.048	1.272	0.0576		
Sugar	2.4	= .....	.....	2.316	0.012		
	44.8	= 5.238	3.0624	16.608	0.6952	= 361	5504

* Coffee, tea, salt, pepper, and vinegar not included in calculation, though issued.

15 contains:

Articles.*	Albuminate.		Fat.	Carb.-Hydrat.	Salts.	Nitrogen.	Carbon.
	Oz.	Ounces.	Ounces.	Ounces.	Oz.	Gr.	Gr.
Salt pork	12	= 3.132	0.84	.....	2.736		
Hard bread	16	= 2.496	0.208	11.744	0.272		
Rice	1.6	= .08	0.0128	1.3312	0.008		
Sugar	2.4	= .....	.....	2.316	0.012		
	32	= 5.708	1.0608	15.3912	3.028	= 394	4686

* Coffee, tea, salt, pepper, and vinegar not included in calculation, though issued.

In practice, as fresh beef is cheaper than salt meat, the ration of peace is habitually No. 14, with the substitution of 18 ounces flour for 20 ounces corn meal. This substitution reduces the value of the ration by nitrogen 17 grains and carbon 562 grains.

During campaigns, in consequence of the cheapness of live stock, and the ease with which it can be driven on the hoof, 20 ounces fresh beef is frequently substituted for 12 ounces pork. This substitution reduces the ration by nitrogen 44 grains, and increases it by carbon 42 grains.

For many years I have investigated the sufficiency of these rations in actual use in the Army. A report of certain of these investigations, giving facts and conclusions therefrom, was made by me to the military authorities in 1880, and published in the annual report of the Commissary-General of Subsistence to the Secretary of War in 1881.

These investigations covered nearly seventeen months, and included all rations issued in that period to an average of 3,824 soldiers.

It must be understood, that in the United States Army, company commanders can legally sell portions of the soldiers' ration, and with the proceeds, at their discretion, buy whatever they choose for the use of the soldier.

My report then showed that from the food of the soldier was arbitrarily taken, for what is called the "post fund," and used to support regimental bands, libraries, etc., a sum equal to about 1 cent per man per day.

Besides this, another portion of the ration was sold by the company commander, and the proceeds expended for articles other than food, to the amount of more than one-fifth of a cent per man per day. So that the soldier lost from his legal allowance an amount of nearly $1\frac{1}{2}$ cents daily (1.1627 cents).

During the time specified, flour was worth \$38.69 per thousand, and beef \$5.35 per hundred, so that the soldier was deprived of so much of his food as would have bought him daily 4.8 ounces of flour or 3.47 ounces of beef. Habitually he received 18 ounces of bread instead of 18 ounces flour, equaling, in deprivation to the soldier, nitrogen 37 grains and carbon 894 grains.

In war or campaign this process of sale and barter was somewhat interfered with.

The rations of the United States Army, in point of fact, even thus diminished, have nourished well the armies of the United States for many years, both volunteers and regulars. Indeed, less has sufficed; for since the great civil war, 1861-'65, the ration of salt, tea, and salt beef has been increased.

Very rarely has complaint of insufficiency been heard at all, and still more rarely

from the consumers themselves—the soldiers; complaints more generally were from the company officers, who, nevertheless, cast doubt and distrust upon the sincerity and justice of their complaints, by continually taking, as above stated, from the starving soldier, a part of the food already represented to be too small.

In view of all the foregoing, there can be no doubt that the ration under consideration is more than ample in time of peace, and at least sufficient in time of war.

Concerning 11, 14, and 15, although presenting maxima, yet considering the general indisposition of governments to yield to sentiment and uselessly make an allowance in greater amount than absolutely needed by its dependents, we may consider them as approximating to the amount we are seeking for.

16 and 17 give the heaviest and the lightest combinations from the rations of the United States Navy.

All the navy rations (*vide* Table I) are constructed with salt meat or preserved meat as staples. Fresh meat is secondary.

In absolute quantity allowed, they are among the very largest of our series, and must be considered as maxima.

18, 19, 20, 21, 22, and 23 are from Letheby. For our purpose, 18, 19, and 22, from their terms, are to be considered as minima, above which we must search.

20 and 21 are maxima.

23, I am compelled to exclude in its published form. 2.97 ounces of nitrogenous food and 20 ounces of carbonaceous food, the amounts given by Letheby (p. 123), reduced by Parkes' tables, as applied to the other rations, give about 5,000 grains carbon, instead of 4,300. I regret the more to be compelled so to do, because the knowledge and discretion of its author entitle his views to great consideration, and because concerning it he uses the language, "a man's daily food should contain *not less than* carbon, 4,300 grains, nitrogen, 200 grains, represented by 20 ounces carbonaceous food and 2.97 nitrogenous.

And here occurs the question, To what class does the soldier assimilate as regards diet? Playfair (p. 19, *op. cit.*), treats of five diets, as follows: 1. Subsistence diet. 2. Diet in quietude. 3. Diet of adult in full health. 4. Diet of active laborers. 5. Diet of hard-worked laborers.

The meaning of the first and second is self-explained. The third, I have given as No. 7 in Table II. Almost identical with the mean of the dietaries of soldiers in time of peace, he thus puts soldiers in peace and adults in full health in the same class, as regards need of food.

The fourth class is of active laborers. On page 15 (*op. cit.*) he gives the mean of war diet, calculated on the food of English soldiers in the Crimean and Kafir wars, French in the Crimean war, Prussians in the Schleswig war, Austrians in the Italian war, Russians in the Crimean war, Hollanders in the Belgian war, and Federal and Confederate soldiers of the United States during the civil war. On comparing the mean diet of these soldiers with that of his fourth class—active laborers—I find that the amounts for the latter are greater than for the soldiers in war in every alimentary principle, viz, flesh formers, fat, starch, starch equivalent, and carbon. Evidently Playfair concluded that "active laborers" need more nourishment than soldiers in war. In this conclusion I concur. The life of a soldier in war has days, now and then, characterized by severe and protracted exertion. So also has the life of most others. The habitual constant life of the soldier, even in war, is far from being one of excessive violent labor, and, on the other hand, in peace it is not one of rest. Roll-calls, fatigue duty, inspections, drills, and parades necessitate exertion in the line of duty, and but very few soldiers fail to walk, jump, run, or somehow skylark in the line of pleasure. So it would appear that the exertions of war, of the bivouac and march and battle, are not *entirely* additional, extra work; but that certainly a part merely takes the place of other work, of a different kind, formerly done.

Nothing is more certain than that hard workers *need* more food than the idle.

Bodily work can only be effected by the waste of muscle, whose regeneration is necessary for further work and for whose regeneration nitrogenous food is absolutely needed; food in the shape of proteines must be supplied and the supply augmented with the increase of work, and in the human body there is more muscular tissue than of all the other tissues combined.

It has been shown, too, that fatty food possesses enormous force-producing value, compared with other food principles, and so the supply of fat may be advantageously increased where bodily work is increased.

But in taking the amount of food *used* by non-workers as a datum on which to calculate the amount *needed* by workers, we must not forget that in reality the idle—those who do not *need* much food—*consume* precisely as much as the worker who needs much food.

So it has seemed to me that theorizers have erred in this direction—a tendency to prescribe for increased works a greater increase of food than it is entitled to over the amount consumed by small workers.

Did we discover an unanimity of opinion regarding the amount and kind of food needed by the soldier; did we find that the reasoning of different students and the

experiments of different observers conducted to one and the same exact result, in regard to the kind and quantity of food required, then nothing but such qualities of food should be allowed to enter into our determination of the question.

But this is not so, and hence other elements must be considered. These are principally personal preferences, cost, and facility of transportation. For some reason or other the French soldier desires his potage, the Italian his macaroni, the Hindu and Chinese his rice, and the English and American his meat and bread and butter. When the nutritive properties of different foods are equal, these preferences must be respected, and even when they are not, for a man's taste will often influence supremely his digestive powers. It happens too, sometimes, perhaps in consequence thereof, that the articles preferred in a given country are the cheapest and easiest to obtain.

Certain forms of food are most easily carried. In the United States live stock is easily driven on the hoof. Hard bread can be compactly packed in boxes; salt pork or bacon in barrels, and conveniently thus carried, and these facts have much to do with the selection of the diet of the United States soldier. Cheapness, too, will vary in different years and places.

So it follows that the absolute and relative amounts of nitrogen and carbon, the absolute and relative proportions of nitrogenous and carbonaceous food, and the bulk of the ration in its natural state, which is provided for different armies, must vary; and all these differences and variations in food proportions be consistent with perfect nutrition.

This is largely due to the fact that the food ingested enters the great laboratory of the interior of the body and there is subjected more or less to that mysterious entity termed the vital power, which, certainly in part, co-ordinates and controls the constructive and destructive processes, viz, the decomposition of the food, its assimilation, and the building up of the body, dis-assimilation, secretion and excretion. The human body possesses an elective power, enabling it from the foods ingested to select out and use those elements, and those only, that it needs, discarding others that may be just as good but are not at that time needed.

Experience has proved that no article of food, save the mother's milk in childhood, presents in suitable proportions all the alimentary principles needed, and to obtain sufficient of an element needed for one system or function it is necessary to take in more of other elements than are needed, though this necessity is somewhat fulfilled by eating mixed foods.

But to return to our analysis of Table II. We have found of the twenty-three diets there given that the majority are not what we seek, viz, a diet that is sufficient and as near the minimum as may be.

Four of these, one by Playfair and three by Letheby, are, by their terms, minima; the largest contains nitrogen, 187 grains, and carbon, 4,157 grains, so that we must decide on more than this.

Twelve of these, two by Parkes, three by Playfair, one by Dalton, two of the Italian army, two of the U. S. Navy, and two by Letheby, we are justified in considering as maxima; doubtless enough, and also more than enough. The smallest of these contains nitrogen, 268 grains, and carbon, 5,139 grains, so that we may expect to find a less amount than this a sufficiency.

One (Letheby's), as such, was excluded in consequence of discrepancy in its figures, but I retain it, analyzed by the tables (Parkes) by which the other diets were resolved, and taking the carbonaceous food, 20 ounces, in the common proportions of fat 3 ounces and carbo-hydrates 17 ounces, equals nitrogen 205 grains and carbon 5,030 grains for the totals.

This and six others, viz, Moleschott's, Pettenkoffer's and Voit's, Ranke's, that of the British army, and two of the U. S. Army, whose figures are tabulated below, may be supposed to approximate what we want.

These last two, though shown to be much more than ample as contained in Table II, yet, when reduced in amount according to the figures on page 41 [page 20 hereof], may be regarded as not much exceeding what we seek.

	Albumi- nates.	Fat.	Carbo- hydrates.	Salts.	Nitrogen.	Carbon.	Proportion of nitrogen to carbon.
	Ozs.	Ozs.	Ozs.	Ozs.	Grs.	Grs.	
Moleschott.....	4.587	2.964	14.247	1.058	317	4,860	1 to 15.33
Pettenkoffer and Voit.....	4.83	4.12	12.40	1.06	333	4,957	1 14.88
Ranke.....	3.52	3.52	8.46	.89	243	3,680	1 15.14
English army.....	3.736	1.44	12.71	.55	256	3,836	1 14.87
United States army.....	5.288	3.07	13.61	.70	344	4,942	1 14.37
United States army.....	5.708	1.06	15.39	3.03	350	4,728	1 13.51
Letheby.....	2.97	3	17	.....	205	5,030	1 24.51
Mean.....	4.37	2.74	13.4	1.31	293	4,576	1 15.62

It will be seen that of these seven the rations of the U. S. Army are the largest.

I am of the opinion that the mean of this last table in nitrogen and carbon is as near as we are now able to come to the answer of the question we are discussing. While probably not much in excess, these amounts are ample.

As an error of deficiency would be much more calamitous than an error of excess, the error should be on the latter side, if error there must be.

Difficulties of weighing and distributing, as well as the composition of foods, will interfere with absolute precision in constructing and issuing such a ration, as to grains of nitrogen and carbon.

A few words must be said concerning water and salts of the food, and concerning vegetables, vinegar, pepper, coffee, tea, and alcohol.

The importance of the water and salts can not be overestimated, but their exact and entire function is not known. It is certainly mechanical, and certainly something besides. Both are needed for nutrition, and are found in almost all food, differing in proportion in each, and incorporated in the organic compounds heretofore named.

Even where most abundant, as in vegetables, water is not found in sufficient quantity for the needs of nutrition. This deficiency is supplied by drinking.

The salts, ordinarily, are found in the foods in sufficient quantity, with the one exception of the sodic chloride. Of this latter, ordinary food does not furnish a sufficiency, and almost universal experience has proved the necessity of furnishing a special supply.

It is worthy of remark that the ration of the U. S. Navy does not contain salt as one of its components. Nevertheless, Jack Tar feels the need of it and buys it. The explanation of this absence is probably found in the idea that sufficient salt is found in the salt meat.

In the rations, where salt meat is the staple, salts are found in great amount (3 ounces, and upward). In all the other rations more than half an ounce is found, independent of a special issue. Preponderance of salts in the food causes disease.

Of common salt half an ounce is an abundant issue.

Vegetables contain all the food principles necessary to life. A man may live on them alone; some claim with better health and development than living on animal food. They can not be considered an important part of the ration issued by Government to the soldier, as nutritive power in proportion to weight is small; their proportions of nitrogen and carbon are small, and the large amount of water they contain make them too bulky, too difficult of transportation, and too perishable for a regular article of issue. Of the potato, the vegetable of perhaps the greatest nutritive value, ten pounds is not an inordinate amount for a man's daily consumption. Special health-giving or restoring qualities, however, make them suitable for special issue, either in addition to or in place of some other food; but as a regular diet, military authorities are almost unanimous in discarding vegetables.

Partly on account of this deficiency, vinegar or lime juice is frequently issued, and seems to make up therefor in a great degree. Vinegar is grateful to the palate and a stimulant to digestion. It should be issued one-third of a gill daily.

Pepper is also appetizing and aids digestion. It is issued to most armies, and should be. Twenty grains is an ample allowance.

Coffee and tea are generally issued as part of the daily diet. I believe coffee preferable to tea for this purpose. Its value, in hot infusion, is out of all proportion to its nitrogen and carbon.

The results of many experiments, made to determine the exact effects of coffee ingested, are so inconsistent that we must regard them as yet undecided. All unite in lauding coffee. In my own observation with troops I have found it to fortify the body and aid it in resisting fatigue and so-called malaria. The allowance of coffee should be 1 ounce daily. The amount issued to the American soldier is vastly larger than that issued in any other army.

Without attempting to argue as to the value of alcohol, I will only here record my views, that its daily issue is inadvisable, but that it should be kept on hand and issued when recommended by the medical officers.

From all of the foregoing we seem to be led to the conclusion that a diet containing nitrogen, 293 grains, and carbon, 4,576 grains, is ample for the diet of a soldier in war and in peace, and that heretofore the amount needed has been overestimated. I give below two rations differing considerably in nutritious principles and nutritious value. (See pp. 46, 47) [page 24 hereof].

The mean* of these two rations will equal nitrogen 300 grains, and carbon 4,964 grains, and to obtain this mean they may be issued alternate days, or weeks, or other period of issue. These amounts do not much exceed the amounts spoken of as ample on the preceding page.

All of the foregoing articles may be exchanged for other articles of food of equal

* It is interesting to note that this mean is less than the mean of the 23 diets in Table II by only nitrogen, grains 16, and carbon grains 53, while it has precisely the same amount of nitrogen and 164 grains more of carbon than Lavy's assumption of what is daily required.

money value. Molasses or sirup may be issued in lieu of sugar, at the rate of 2 gallons in lieu of 15 pounds of sugar.

To troops traveling or in the field, when it is impracticable to cook rations, may be issued, per 100 rations, in lieu of the usual meat portion of the ration, 75 pounds canned fresh beef or 75 pounds canned corned beef; in lieu of the dry vegetable portion of the ration, 33 one pound cans baked beans; or 20 two-pound cans baked beans; or 15 three-pound cans baked beans; or 5 one-gallon cans baked beans.

Three pints of liquid coffee per man may be issued daily in lieu of the sugar and coffee component, to troops traveling upon cars, and having no facilities for cooking coffee, the cost not to exceed 21 cents per day.

In all discussions concerning the components of soldiers' rations and their amounts, and particularly with regard to vegetables and variety in the diet, I must again emphasize the fact, that either by the soldier himself, or the military authorities for him, a system of sale, interchange, or barter, will always prevail. The food not needed or desired will be exchanged for food that is needed or desired.

To summarize: I have tried in the foregoing to show the difficulties in determining the exact—the least—amount of food that will suffice for the soldier in the exigencies of service; I have given the rations of different armies, and the diets devised by various observers and experimenters; compared them, discussed their bearings, and shown that in general they err on the side of amplitude. I have shown that soldiers, as regards their demand for food, are to be classed in the category of active laborers that besides the nutriment that a food contains, we must also consider cost, facility of transportation, and personal preference, in fixing a soldier's diet.

I conclude that the soldier's ration should contain about 293 grains nitrogen, and 4,576 grains carbon, and that considerable variations in the relative proportions of these elements, as well as in those of the food principles, and in the bulk of the food ingested, are consistent with health.

I suggest two rations for armies in temperate latitudes, or even for general use, whose proportions of nitrogen and carbon are—nitrogen, 300 grains, carbon 4,964; not claiming, however, for these rations peculiar excellence, but that they are sufficient and in a convenient form.

Finally, I emphasize the fact that sale, barter, and interchange of foods, in practice, will always give the soldier suitable variety.

Ration A.

Articles.	Amount.	Albumi- nates.	Fatty.	Carbo- Hydrates	Nitrogen.	Carbon.	Remarks.
	<i>Ozs.</i>	<i>Ozs.</i>	<i>Ozs.</i>	<i>Ozs.</i>	<i>Grs.</i>	<i>Grs.</i>	
Fresh beef	22	2.730	1.5338				The totals include only the beef, flour, peas, and sugar.
Flour	14	1.54	.28	9.812			
Peas	2.4	.526	.048	1.272			
Sugar	2			1.930	332	4,297	
Coffee	1						
Vinegar	$\frac{1}{2}$						
Salt .....	.5					
Pepper	120						
Yeast powder61						
Total	40.4	4.807	1.8618	13.044	332	4,297	

Ration B.

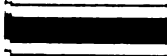
Articles.	Amount.	Albumi- nates.	Fatty.	Carbo- Hydrates.	Nitrogen.	Carbon.	Remarks.
	<i>Ozs.</i>	<i>Ozs.</i>	<i>Ozs.</i>	<i>Ozs.</i>	<i>Grs.</i>	<i>Grs.</i>	
Salt fat pork	12	1.176	5.868				The totals in- clude only pork, hard bread, peas, and sugar.
Hard bread	14	2.184	.182	10.276			
Peas	2.4	.528	.048	1.272			
Sugar	2			1.930	268	5,631	
Coffee	1						
Salt .....	.5					
Pepper	120						
Yeast powder .....	.61					
Vinegar	$\frac{1}{2}$						
Total	30.4	3.888	6.098	13.478	268	5,631	

* GILL

† Grains.

REPORT OF THE SURGEON-GENERAL.

1. The first part of the document is a list of names and addresses of the members of the committee.



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B



Nearly all the balance remaining on hand at the close of the fiscal year has already been, or will be, expended in the payment for supplies contracted for and other obligations incurred prior to July 1, 1888.

The money value of the medical and hospital supplies actually issued during the fiscal year ended June 30, 1888, was \$178,034.14, and the cost of the supplies required for issue during the current fiscal year will undoubtedly exceed that amount. I base the estimate of the probable cost of the medical and hospital supplies which will be required for issue during the present fiscal year on the fact that the average money value of medical supplies issued annually during the fiscal years July 1, 1877, to June 30, 1888, was approximately \$175,500, exclusive of all other expenses.

In this connection I respectfully invite your attention to accompanying estimate of appropriation required by the Medical Department of the Army for the service of the fiscal year ending June 30, 1890, as follows:

For the purchase of medical and hospital supplies, including disinfectants for general sanitation, expenses of medical purveying depots, pay of employés, medical care and treatment of officers and enlisted men of the Army on duty at posts and stations for which no other provision is made, for the proper care and treatment of cases in the Army suffering from contagious or epidemic diseases, and the supply of the Army and Navy Hospital at Hot Springs, Ark., advertising, and other miscellaneous expenses of the Medical Department; in all, \$230,000; the amount to be expended for pay of civilian employés not to exceed \$45,000.

The estimated amount will, it is believed, be necessary to meet the wants of the Medical Department for the purposes stated for the ensuing fiscal year. It becomes necessary from time to time to add to the standard supply table new remedies, new instruments and new standard medical books, and provide them for use by medical officers of the Army in the proper diagnosis and treatment of diseases and injuries incident to the service.

The limited number of contract surgeons allowed by law necessitates the employment of private physicians, under existing regulations, to furnish medical attendance to officers and enlisted men at stations where there is no medical officer of the Army. These physicians are paid by the visit from the "medical and hospital appropriation." Added to this is the necessary expenditure for the employment of skilled nurses for the proper care and treatment of cases of epidemic and contagious diseases.

The merging of the appropriation for the maintenance of the Army and Navy Hospital, Hot Springs, Ark., into the appropriation for the Medical and Hospital Department by the act approved September 22, 1888, adds to the amount to be expended for the pay of employés the pay-roll of said hospital, which has been at the rate of \$12,000 per year. The amount fixed by said act for pay of employés is \$42,000, which, in my judgment, will not be sufficient to meet the necessities of the service for payment of employés at the medical purveying depots, medical directors' offices, and the U. S. Army Dispensary, Washington, D. C., heretofore allowed by law at \$36,000, and paid from the appropriation for the Medical and Hospital Department, and, in addition thereto, the employés of the Hot Springs hospital. The limit should therefore, in my opinion, be not less than \$48,000.

The order of the President prescribing the regulations for the administration and government of the Army and Navy Hospital, Hot Springs, Ark., provides that the employés of said hospital shall be civilians.

I have the honor to renew my recommendation made in my last annual report that, in order to facilitate the purchase and delivery of medical and hospital supplies, and for the best interests of the service with a view to economy, Congress be requested to grant authority in the purchase of medical and hospital supplies which cost less than five hundred dollars (\$500), to make such purchases after due advertisement for bids, without entering into a formal written contract. In many instances a strict compliance with the letter of the law and existing regulations, in preparing the formal executory contracts, five copies of which are required, entails an expense to the Government in clerical time and labor fully equal to the cost of the article for which the contract is made. It is not believed that such was the intention of the framers of the law relating to purchases of Government supplies.

I have the honor to submit also a statement showing the expenditures during the last fiscal year from the appropriations for the Medical Department for prior fiscal years and the balances on hand June 30, 1888:

Medical and Hospital Department, 1887:

Balance on hand July 1, 1887.....	\$104, 125. 70
Refunded during the year.....	87. 05
Total to be accounted for.....	104, 212. 75

Disbursed during the year:

For medical and hospital supplies.....	\$56, 729. 69
For expenses of purveying depots.....	1, 332. 45
For medical attendance, etc.....	1, 641. 79
For advertising.....	8. 10
For miscellaneous expenses.....	91. 29
	59, 803. 32

Balance to be accounted for July 1, 1888.....	44, 409. 43
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As follows:

Balance in U. S. Treasury.....	38, 432. 44
In hands of disbursing officers.....	5, 976. 99
	44, 409. 43

Medical and Hospital Department, 1886:

Balance on hand July 1, 1887.....	43, 944. 63
Disbursed during the year.....	\$20, 132. 90
Transferred to surplus fund.....	14, 415. 82
	34, 548. 72

Balance to be accounted for July 1, 1888.....	9, 395. 91
---	------------

As follows:

In hands of disbursing officers.....	9, 395. 91
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Medical and Hospital Department, 1885 and prior years:

Appropriated by act approved February 1, 1883.....	67. 00
Appropriated by act approved March 30, 1888.....	121. 66
Total to be accounted for.....	188. 66
Disbursed during the year.....	188. 66

Medical and Hospital Department, 1882:

Balance on hand July 1, 1887.....	452. 00
Transferred to surplus fund.....	452. 00

I have also the honor to submit a statement showing the expenditures made from the appropriations for the "Signal Service—Medical Department," during part of the last fiscal year, viz, July 1, 1887, to March 22, 1888, from which latter date all disbursements therefrom were made under the direction of the Chief Signal Officer of the Army, in

pursuance of General Orders No. 14, Adjutant-General's Office, March 9, 1888:

Signal Service—medical department, 1888:	
Appropriated by act approved March 3, 1887	\$2, 000. 00
Disbursed to March 22, 1888	1, 548. 38
Balance in U. S. Treasury March 22, 1888	451. 62
Signal Service—medical department, 1887:	
Balance on hand July 1, 1887	344. 47
Disbursed to March 22, 1888	20 00
Balance in U. S. Treasury March 22, 1888	324. 47
Signal Service—medical department, 1886:	
Balance on hand July 1, 1887	3, 418. 82
Balance in U. S. Treasury March 22, 1888	3, 418. 82
Library of the Surgeon-General's Office, 1887:	
Balance from previous fiscal year	324. 37
Disbursed during the year	324. 37
Library of the Surgeon-General's Office, 1888:	
Appropriated by act of February 9, 1887	10, 000. 00
Disbursed during the year	9, 738. 83
Balance remaining June 30, 1888	261. 17
Army Medical Museum, 1887:	
Balance from previous fiscal year	690. 50
Disbursed during the year	690. 50
Army Medical Museum, 1888:	
Appropriated by act of February 9, 1887	5, 000. 00
Disbursed during the year	3, 803. 69
Balance remaining June 30, 1888	1, 196. 31
Medical and Surgical History:	
Balance from previous fiscal year	4, 254. 22
Disbursed during the year	1, 419. 10
Balance June 30, 1888	2, 835. 12
Building for Army Medical Museum and Library:	
Appropriated by act of August 4, 1886	38, 050. 00
Disbursed in the year ending June 30, 1887	\$9, 909. 99
Disbursed in the year ending June 30, 1888	26, 959. 71
	36, 869. 70
Balance June 30, 1888	1, 180. 30
<i>Maintenance of Army and Navy Hospital at Hot Springs, Ark.</i>	
Pay of civilian employes, 1888:	
Appropriated by act of February 9, 1887	\$10, 000. 00
Disbursed during the year	9, 998. 98
Balance June 30, 1888	1. 02
Artificial limbs, 1885 and prior years:	
Balance from previous fiscal year	840. 98
Appropriated by act of March 30, 1888	52. 00
Refundment warrant	10. 00
Total to be accounted for	902. 98
Disbursed during the year	\$62. 00
Carried to the surplus fund	840. 98
	902. 98

Artificial limbs, 1886:

Balance from previous fiscal year.....	\$33,688.04
Disbursed during the year	\$379.35
Carried to the surplus fund	80,342.13
	<u>80,721.48</u>

Balance June 30, 1888..... 2,966.56

Artificial limbs, 1887:

Balance from previous fiscal year.....	107,693.25
Disbursed during the year	6,258.06

Balance June 30, 1888..... 101,435.19

Artificial limbs, 1888:

Appropriated by act of March 3, 1887.....	130,000.00
Disbursed during the year	92,079.70

Balance June 30, 1888..... 37,920.30

Appliances for disabled soldiers, 1886:

Balance from previous fiscal year....	1,648.50
Carried to the surplus fund	1,648.50

Appliances for disabled soldiers, 1887:

Balance from previous fiscal year.....	* 1,792.00
Disbursed during the year	248.00

Balance June 30, 1887..... 1,544.00

Appliances for disabled soldiers, 1888:

Appropriated by act of March 3, 1887.....	2,000.00
Disbursed during the year	227.80

Balance June 30, 1888..... 1,772.20

Support and medical treatment of destitute patients, 1888:

Appropriated by act of March 3, 1887	17,000.00
Disbursed during the year	17,000.00

Expended in furnishing trusses to disabled soldiers 5,748.66

There were furnished during the year:

In kind:

Trusses	1,080
Artificial arms	3
Artificial legs	55
Artificial foot	1
Apparatus for legs	2
Miscellaneous appliances	8

By commutation:

Artificial arms	315
Artificial hands	13
Artificial legs	146
Artificial feet	24
Apparatus for arms	737
Apparatus for legs.....	472

* There was an error in the last annual report in giving the disbursements under "appliances, 1887." The amount should have been \$208 instead of \$643.

**HEALTH OF THE ARMY FOR THE CALENDAR YEAR ENDING
DECEMBER 31, 1887.**

To facilitate the study of the influences exerted upon the health of troops by peculiarities of environment, the territory of the United States, over the whole of which the Army is dispersed in numerous small commands, has been divided into regions, each of which is characterized by distinct physical features and climatic conditions, and the various items of information embodied in this report have been arranged as far as possible in accordance with that division. Following the statistics relative to the health of the troops serving in the different regions, the subject of the health of the whole Army receives consideration, and the principal facts in connection therewith are given.

The regions into which the country has been divided for the purposes of this report are eleven in number, as follows: The Atlantic Coast, Eastern Timbered Plains and Hills, Appalachian, Northern Lakes, Central Timbered Plains and Hills, Alluvial, Gulf Coast, Prairies, Great Plains, Cordilleras, and Pacific Coast. Some of these regions, on account of their great extent north and south, have been subdivided into groups of military posts.

For convenience of reference the following description of the distinctive features of the different regions is reproduced from the last annual report:

Region of the Atlantic coast.—This region comprises only a narrow strip of territory along the Atlantic sea-board, lying between the ocean and the region of Eastern Timbered Plains and Hills. In the northern portion the surface is mainly undulating and hilly, and presents substantially the same features as the region on its west. Along the coast of New Jersey, Delaware, Maryland, and Virginia the ground is low, sandy, and in places marshy. From Virginia southward a large proportion of the area is swampy, and differs but little in general characteristics from the coast swamps which border the Gulf of Mexico.

Region of Eastern Timbered Plains and Hills.—This region, lying between the Atlantic Coast region on the east and the Appalachian Mountain region on the west, extends from the northern boundary of Maine to the coast swamps of the Gulf of Mexico. In Alabama, below the southern terminus of the Appalachian system, it meets, and is continuous with, the region of Central Timbered Plains and Hills. It comprises areas differing considerably in temperature, rain-fall, and elevation, but is uniform in the fact that it is quite universally covered with forests, except where they have been cut away by the hands of man, and that it nowhere presents any high degree of relief. The New England part of the region is somewhat hilly, and, excepting in northern Maine, is largely cleared. In the Southern Atlantic States it constitutes the Atlantic plain, which, near the mountains, contain some outlying hills of the Blue Ridge, while eastward it slopes very gradually and uniformly towards the sea.

Region of the Appalachian Mountains.—This mountain region lies between the regions of Eastern and Central Timbered Plains and Hills, and extends in a southwesterly direction from the northern boundary of Maine to the northern central portion of Alabama, where it ceases. It is in general densely covered with forests, and enjoys a heavy rain-fall. Its greatest elevation is in the extreme north and south, and much of its area ranges from 1,000 to 7,000 feet above sea-level. Lying between the numerous ranges which make up the system are many valleys, whose elevation is much below the general level of the region.

Region of the Northern Lakes.—This region includes the area bordering on the St. Lawrence River and the Great Lakes, together with the interior of Michigan, northern Wisconsin, and northeastern Minnesota, which are lacustrine in their character. The greater portion of the region is covered with heavy forests, which, together with the proximity of the Great Lakes and other smaller bodies of water, tend to reduce the extremes of temperature.

Region of Central Timbered Plains and Hills.—This area presents substantially the same features as the region of Eastern Timbered Plains and Hills, with which it is continuous in Alabama, and from which, to the northward, it is separated by the Appalachian system. Except the alluvial region of the Mississippi and Red Rivers it includes all that area lying between the region of the Northern Lakes and the coast

swamps of the Gulf of Mexico and the Appalachian Mountains on the east and the region of the Prairies on the west. In Kentucky, Tennessee, Ohio, Indiana, and southern Illinois the country is somewhat broken, while in the Ozark region of Arkansas, Missouri, and Indian Territory the hills are still more abrupt. In southeastern Arkansas, Louisiana, and eastern Texas the surface is comparatively level, and is densely forested.

Alluvial Region.—This region comprises the swamp lands of the Mississippi and Red River valleys. No troops were stationed within its limits during the year.

Region of the Gulf Coast.—This region includes those portions of Florida, Alabama, Mississippi, Louisiana, and Texas which border on the Gulf of Mexico. It is continuous with, and similar in character to, the coast swamps of the southern Atlantic coast. Nearly all of it is low and marshy, with a hot climate, tempered somewhat by proximity to the sea, and an extremely moist atmosphere.

Region of the Prairies.—This region extends from the British possessions to the Gulf of Mexico, and may be looked upon both as regards physical features and climatic conditions as a transition ground, with no well-defined line of demarcation, between the regions of Central Timbered Plains and Hills and the Northern Lakes on the east, and the Great Plains on the west. Its surface is level or gently undulating, and its timbered area ranges from 20 per cent. down to zero.

Region of the Great Plains.—The region thus designated stretches from the northern to the southern boundary of the country, and from the base of the Rocky Mountains on the west to the Prairie region, into which it imperceptibly merges on the east. Its features are, in general, those of an arid, treeless plain. The surface is undulating, with few or no sharp changes of level, and its elevation ranges from about 2,000 feet along the eastern border to 5,000 or 6,000 along the western border, at the base of the Rocky Mountains. Toward the southern border the elevation gradually diminishes until the Rio Grande is reached. In this vicinity some of the military stations have an elevation of less than 1,000 feet; but with this exception all posts in the region of the Great Plains are more than 2,000 feet above the level of the sea. The rain-fall of this region is universally small; timber growth is almost entirely absent; the aridity of the atmosphere is great, and, in general, increases from north to south and from east to west; the thermometric variations, both diurnal and annual, are excessive; and during certain seasons violent and long-continued wind storms, often accompanied by rain, snow, or hail, are of frequent occurrence.

Region of the Cordilleras.—The region thus designated comprises all that vast area stretching from the northern to the southern boundary of the country, and from the Rocky Mountains on the east to the Cascade Range and the Sierra Nevada on the west. It may be roughly described as a high plateau, whose elevation, greatest through its center from east to west, gradually falls off toward the north and south from that central line. This plateau has built upon it a great number of ranges of mountains and isolated volcanic cones, and is further diversified by numerous cañons, valleys, basins, sinks, and parks. Over much of the area the elevation ranges from 6,000 up to 10,000 feet. A few military stations located in the extreme northern and southern portions of the region have an elevation ranging from 3,000 down to less than 1,000 feet, but, with these exceptions, the posts in the region of the Cordilleras are over 4,000 feet above the level of the sea. The northern parts of the region and the higher mountains enjoy a tolerably heavy rain-fall, so that they are more or less covered with forests. The southern portion and the valleys, except those in the northern part of the area, receive comparatively little rain and are generally treeless. The distribution of temperature is quite similar; upon the higher mountains an almost arctic climate prevails, while the southern and lower parts of this area are among the hottest portions of the United States.

Region of the Pacific coast.—This region comprises the whole of the western border of the country lying between the Cascade Range and the Sierra Nevada on the east and the Pacific Ocean on the west. The surface is broken by a complex range of mountains, known as the Coast Range, running parallel to the coast. East of this range is a great valley extending from Puget Sound to the southern part of California, occupied in Oregon by the Willamette and other rivers, and in California by the Sacramento and the San Joaquin. The whole region has a wet and a dry season, corresponding to the summer and winter of other parts of the country, but the amount of rain-fall is not by any means uniform over the whole area. The northern portion is excessively watered, the rain-fall in some seasons exceeding 100 inches per annum, while the southern part is, in general, extremely arid.

The following table shows the average, for each region, of all the observations reported on temperature, rain-fall, and relative humidity of the atmosphere:

Regions and their groups.	Temperature (degrees Fahrenheit).				Relative humidity.	Rain-fall (inches).
	Maximum.	Minimum.	Daily range.	Annual.		
Atlantic coast	94	9	15	55.5	77	45.00
Eastern Timbered Plains and Hills	101	5	16	57.3	70	45.94
Appalachian Mountains	97	-6	20	52.9	69	43.43
Northern Lakes	95	-14	17	44.6	75	29.16
Central Timbered Plains and Hills	100	0	19	59.7	68	36.79
Gulf Coast	95	22	14	66.9	78	51.12
Prairies:						
Northern group	96	-38	22	40.3	73	20.41
Middle group	101	-20	20	51.2	68	22.41
Southern group	102	8	23	64.1	63	36.31
Great Plains:						
Northern group	99	-42	24	41.0	67	19.35
Middle group	101	-19	26	51.9	64	20.93
Southern group	99	5	25	63.8	55	19.30
Cordilleras:						
Northern group	95	-16	23	46.0	63	15.86
Middle group	94	-2	24	49.1	50	14.13
Southern group	106	11	31	62.6	52	14.52
Pacific Coast:						
Northern group	88	11	14	49.3	82	50.79
Southern group	99	31	20	60.1	68	19.22

REGION OF THE ATLANTIC COAST.

Two or more subdivisions of this region might properly be made, but, as all but two of the fifteen posts in the whole area from which reports of medical officers were received during the year are situated in the northern part and are subjected to practically the same climatic conditions, it has not been thought advisable to arrange them in groups, as has been done in other regions, in different portions of which very dissimilar conditions prevail.

The following table shows the stations in the region of the Atlantic coast, with mean strength of command, ratios of admission to sick report, constant non-effectiveness, discharges and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Fort Preble, Me.	30	65	12	77	1,074.36	1.79	45.87	1	1
Fort Warren, Mass.	73	59	20	79	1,082.19	3.21	43.91	.....	1
Watertown Arsenal, Mass.	33	37	7	44	1,333.33	2.22	67.33	2	.....
Fort Adams, R. I.	235	173	43	216	919.15	9.22	39.24	6	.....
Fort Trumbull, Conn.	70	25	8	33	471.43	1.42	20.36	2	.....
Fort Columbus, N. Y.	153	133	22	155	1,013.07	3.81	24.87	4	1
Fort Schuyler, N. Y.	69	71	21	92	1,333.33	2.70	39.19	4	1
Fort Hamilton, N. Y.	175	152	41	193	1,102.86	5.65	32.31	3	1
Fort Wadsworth, N. Y.	40	28	7	36	900.00	.80	19.92	3	.....
Fort Wood, N. Y.	15	3	.....	3	200.00	.04	2.40	.....	.....
David's Island, N. Y.	574	736	89	825	1,437.28	22.69	39.53	9	5
Willetts Point, N. Y.	380	760	130	890	2,342.11	20.71	54.50	18	4
New York City, N. Y.	61	4	.....	4	65.57	.77	12.67	.....	.....
Fort Monroe, Va.	257	308	52	360	1,400.78	10.71	41.67	4	3
St. Francis Barracks, Fla.	96	141	24	165	1,718.75	3.93	40.95	6	.....
Field	15	14	1	15	1,000.00	.07	4.40	.....	.....
Total	2,285	2,710	477	3,187	1,394.75	89.74	39.27	62	17

The force serving in this region during the year consisted of 26 batteries of artillery, the battalion of engineers, 2 detachments of ordnance, and the general service recruits at David's Island, N. Y.

The mean strength, including officers, was 2,285 men, of whom 2,267 were white and 18 colored (of African descent). The total number of admissions to sick report was 3,187; of this number 1,512 were treated in quarters, 1,660 in hospital, and 15 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 29, in hospital 61, total 90; from disease 75, injury 15. The discharges for disability numbered, from quarters 21, hospital 41, total 62; for disease 56, for injury 6. The deaths numbered, in quarters 10, hospital 7, total 17; from disease 9, injury 8.

The admission rate per 1,000 of mean strength was 1,395 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 726. The ratio of deaths per 1,000 of mean strength was 7.44, in the proportion of 3.06 in hospital and 4.38 in quarters; 3.94 from disease and 3.50 from injury; that of discharges for disability was 27.13, in the proportion of 17.94 from hospital, and 9.19 from quarters; 24.51 for disease and 2.62 for injury; and that of constant non-effectiveness on account of sickness was 39.27, in the proportion of 26.64 in hospital, 12.60 in quarters, and .03 in the field; 32.77 from disease, and 6.50 from injury.

The average duration of each case of sickness was, for those treated in hospital 13 days, in quarters 7 days, in the field 1 day; for disease 10.1 days, for injury 11.4 days, for all cases admitted 10.3 days; and the total loss of time on account of sickness averaged 14 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 9 days, for those who were discharged for disability 72 days, and for those who died 25 days. The ratio of recoveries per 1,000 of all admissions to sick report was 965, of discharges for disability 19, and of deaths 5.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region of the Atlantic Coast during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance, as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	5,420	11.4	477	8	6	6.50	208.75	3.50	2.63
Diseases of the respiratory system	3,662	9.6	383	2	5	4.39	167.61	.88	2.19
Veneral diseases	3,169	21.6	147	.....	8	3.80	64.33	....	3.50
Diseases of the digestive system	3,121	7.5	417	.....	7	3.74	182.49	....	3.06
Diseases of the locomotor system	2,258	14.6	155	.....	5	2.71	67.83	.....	2.19
Diseases of the integumentary system	2,211	9.6	230	.....	1	2.65	100.66	.....	..

Classified causes.	Time lost—		Number of—			Ratio per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Diarrheal diseases (including cholera morbus).....	1,810	4.1	448	1	1	2.18	198.06	.44	.44
Specific febrile and acute infectious diseases.....	1,754	20.2	87	3		2.10	38.07	1.31	
Zoogenous diseases.....	1,565	10.4	150			1.88	68.65		
Malarial diseases.....	1,350	8.7	156			1.63	68.27		
Diseases of the genito-urinary system (non-venereal).....	1,226	31.4	39		7	1.47	17.07		3.86
Constitutional diseases.....	1,183	17.9	66		5	1.42	28.88		2.19
Diseases of the nervous system.....	1,117	8.7	129	1	8	1.31	56.46	.44	3.50
Dietic diseases.....	585	3.4	171			.70	74.81		
Diseases of the circulatory system.....	575	71.9	8		2	.69	3.50		.88
Diseases of the eye.....	382	10.6	36		1	.46	15.75		.44
Diseases of the lymphatic system.....	332	19.5	17			.40	7.44		
Septic diseases.....	331	47.3	7	1		.40	3.06	.44	
Diseases of the ear.....	233	10.6	22			.28	9.63		
Developmental diseases.....	170	85.0	2		5	.20	.87		2.19
Parasitic diseases.....	150	13.6	11			.18	4.81		
Typho-malarial fever.....	22	22.0	1	1		.04	.44	.44	
Diseases of the nose.....	1	1.0	1				.44		
Unclassified.....	111	4.1	27		1	.13	11.82		.44
Total.....	32,756	10.3	3,187	17	62	39.27	1,394.75	7.44	27.13

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 1.75 per 1,000 of mean strength; for *pneumonia* it was 6.12; for *bronchitis*, 103.28; for *catarrh and common colds*, 45.52; for *acute articular rheumatism*, 2.63; for *articular rheumatism (subacute and chronic)*, 22.32; for *muscular rheumatism*, 59.52; for *cholera morbus*, 10.94; for *diarrhœa, (acute and chronic)*, 175.49; for *dysentery (acute and chronic)*, 9.63; for *paroxysmal (malarial) fevers*, 68.27; for *typhoid fever*, 10.07.

Of the class of *specific febrile and acute infectious diseases*, 87 admissions to sick report, or a rate of 38.07 per 1,000 of mean strength, were reported for the region during the year; of this number, 6 cases, or a rate of 333.33 per 1,000 of mean strength, occurred among the colored troops.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Atlantic Coast during the year comprised the months of May, June, and July, when the constant non-effective rate averaged 41 per 1,000 of mean strength. The principal causes of this non-effectiveness were, in the order of their relative importance, contusions and sprains, vaccina, diarrhœa, articular rheumatism, syphilis, and gonorrhœa.

July showed a greater number of admissions to sick report than any other month of the year, its rate being 173.61 per 1,000 of mean strength; the constant non-effective rate was highest in May, 43.03 per 1,000. The greatest number of deaths in any one month was 4, reported for September.

The period of *least sickness* appears to have been during the months of November and December, the constant non-effective rate for this period being 35.27 per 1,000 of mean strength.

In the above computations all cases of disease or injury have been included; but if, in order to obtain figures which will show the relative

healthfulness of different localities, or of the same locality at different seasons, cases of injury, venereal disease, and alcoholism are excluded from the calculation, it is found that July, August, and September furnished the greatest amount of sickness, and that the prevalent diseases, in the order of their relative importance, were diarrhœa, malarial fever, typhoid fever, and dysentery, and that the constant non effective rate was 29.99 per 1,000 of mean strength, that for the whole year being 28.27.

Excluding the class of cases mentioned above, the period of least sickness remains unchanged, comprising the months of November and December, the constant non-effective rate being 23.51 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—*Willeys Point, N. Y.*, furnished the highest admission rate for the year, 2,342.11 per 1,000 of mean strength; *Watertown Arsenal, Mass.*, the highest constant non-effective rate, 67.33 per 1,000. *Fort Preble, Me.*, gave the highest death rate, 25.64 per 1,000 of mean strength.

CIVILIANS WITH COMMAND.—With a mean strength of 2,285 officers and enlisted men serving in the region of the Atlantic coast, there was constantly present during the year an average of 1,817 civilians, comprising the families of officers and enlisted men, servants, civilian employés, etc. Of this number 223 were adult males, 693 adult females, and 901 children. The admissions to sick report numbered for the adult males 83, with no deaths; for the adult females 632, and the deaths 4; for the children 745, and the deaths 11; or an aggregate of 1,460 admissions and 15 deaths.

The period of *greatest sickness* among the civilian attachés comprised the month of August, the prevailing diseases being those of the digestive and respiratory systems.

The *least sickness* among civilians was reported during the month of June.

REGION OF EASTERN TIMBERED PLAINS AND HILLS.

Of the 9 military stations in this area, all have elevations ranging from 36 to 600 feet above the level of the sea.

The following table shows the stations in the region, with mean strength of command, ratios of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Dis-ease.	Injury.	Total.					
Kennebec Arsenal, Me.	16	39	1	40	2,500.00	.43	27.00	.....	.....
Springfield Armory, Mass.	40	39	5	44	1,100.00	.94	23.42	.....	1
West Point, N. Y.	328	299	70	369	1,125.00	7.44	22.60	1	2
Fraunkford Arsenal, Pa.	34	32	2	34	1,000.00	.99	23.26	.....	1
Philadelphia, Pa.	20	.....	.....	.....	.....	.....	.....	.....	.....
Fort Mifflin, Md.	117	172	19	191	1,632.48	6.98	59.67	5	3
Fort Myer, Va.	64	104	30	134	2,093.75	2.57	41.73	4	1
Washington Barracks, D. C.	267	425	47	472	1,767.79	12.16	45.54	4	1
Augusta Arsenal, Ga.	27	17	2	19	703.70	.56	20.81	1	.....
Field	4	4	2	6	1,500.00	.02	5.50	.....	.....
Total.....	917	1,131	178	1,309	1,427.48	32.20	35.11	15	.....

The force serving in this region during the year consisted of portions of one regiment of artillery, one company of the engineer battalion, detachments of ordnance, and the unassigned artillery and cavalry detachments at West Point, N. Y.

The mean strength, including officers, was 917 men. The total number of admissions to sick report was 1,309; of this number, 802 were treated in quarters, 501 in hospital, and 6 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 13, in hospital 19, total 32; from disease 27, injury 5. The discharges for disability numbered, from quarters 6, from hospital 9, total 15; for disease 13, for injury 2. The deaths numbered, in quarters 2, in hospital 7, total 9; from disease 8, injury 1.

The admission rate per 1,000 of mean strength was 1,427 for all men who were excused from any part of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 546. The ratio of deaths per 1,000 of mean strength was 9.81, in the proportion of 2.18 in quarters and 7.63 in hospital; 8.72 from disease and 1.09 from injury; that of discharges for disability was 16.36, in the proportion of 6.54 from quarters and 9.82 from hospital; 14.18 for disease and 2.18 for injury; and that of constant non-effectiveness was 35.11, in the proportion of 13.90 in quarters, 21.19 in hospital, and .02 in the field; 29.45 from disease, and 5.66 from injury.

The average duration of each case of sickness was, for those treated in quarters 6 days, in hospital 14 days; for disease 8.7 days, and for injury 10.7 days; for all cases admitted 9 days; and the total loss of time on account of sickness averaged 13 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 8 days, for those who were discharged for disability 56 days, and for those who died 17 days. The ratio of recoveries per 1,000 of all admissions to sick report was 969, of discharges for disability 11, and of deaths 7.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region of the Eastern Timbered Plains and Hills during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance, as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	1,896	10.7	178	1	2	5.66	184.11	1.09	2.18
Venereal diseases	1,687	25.6	63	.....	4	5.04	71.97	.....	4.36
Malarial diseases	1,544	6.4	242	1	.....	4.61	263.90	1.09	.....
Diseases of the respiratory system	1,351	7.8	174	3	1	4.04	189.75	3.27	1.09
Diseases of the digestive system	1,088	8.8	124	.....	1	3.25	135.22	.....	1.09
Constitutional diseases	728	13.0	56	.....	2	2.18	61.07	.....	2.18
Diarrhoeal diseases	615	3.3	169	.....	.....	1.84	206.11	.....	.....
Diseases of the integumentary system	518	8.0	65	.....	.....	1.55	70.88	.....	.....
Specific febrile and acute infectious diseases	405	20.2	20	1	.....	1.21	21.81	1.09	.....
Diseases of the circulatory system	371	46.4	8	1	1	1.11	8.72	1.09	1.09
Diseases of the nervous system	347	5.7	61	2	2	1.04	66.52	2.18	2.18
Diseases of the locomotor system	247	8.2	30	.....	1	.74	32.72	.....	1.09
Diseases of the genito-urinary system (non-venereal)	244	15.2	16	.....	1	.73	17.49	.....	1.09
Diseases of the eye	229	13.5	17	.....	.....	.68	18.54	.....	.....
Dietic diseases	209	5.5	38	.....	.....	.62	41.44	.....	.....
Diseases of the lymphatic system	79	26.3	3	.....	.....	.24	3.27	.....	.....
Septic diseases	69	23.0	3	.....	.....	.21	3.27	.....	.....
Parasitic diseases	38	9.5	4	.....	.....	.11	4.36	.....	.....
Diseases of the ear	20	5.0	4	.....	.....	.06	4.36	.....	.....
Zoögenous diseases	15	3.7	4	.....	.....	.04	4.36	.....	.....
Diseases of the nose	14	14.0	1	.....	.....	.04	1.09	.....	.....
Unclassified diseases	39	6.5	6	.....	.....	.12	6.54	.....	.....
Total	11,753	9.0	1,309	9	15	35.11	1,427.48	9.81	16.36

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 4.36 per 1,000 of mean strength; for *pneumonia*, 6.54; for *pleuritis*, 4.36; for *bronchitis*, 118.87; for *catarrh and common colds*, 53.44; for *acute articular rheumatism*, 2.18; for *articular rheumatism (subacute and chronic)*, 54.53; for *muscular rheumatism*, 31.62; for *diarrhœa (acute and chronic)*, 184.29; for *dysentery (acute and chronic)*, 5.45; for *cholera morbus*, 16.36; for *paroxysmal (malarial) fevers*, 263.90, and for *typhoid fever*, 4.36. Of the class of *specific febrile and acute infectious diseases* 20 admissions to sick report, or a rate of 21.81 per 1,000 of mean strength were reported in the whole region during the year.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of Eastern Timbered Plains and Hills during the year comprised the months of October, November, and December. During this period the number constantly non-effective on account of sickness averaged 39.67 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, intermittent fever, contusions and sprains, articular rheumatism, syphilis, and typhoid fever. The rate of constant non-effectiveness for the year was 35.11 per 1,000 of mean strength.

July, August, and September were the months which showed the greatest number of admissions to sick report during the year, the rates per 1,000 of mean strength averaging 153.09 for each. The number constantly non-effective on account of sickness was greatest in December, the ratio per 1,000 of mean strength being 41.64. The greatest number of admissions was reported in July, the ratio per 1,000 of mean

strength being 161.55. The greatest number of deaths occurred in July and November, 2 having been reported for each month.

The period of *least sickness* appears to have been during the months of April and May, the constant non-effective rate for this period being 29.31 per 1,000 of mean strength.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are excluded from the calculation, it is found that while the period of greatest sickness remains the same, the principal causes of disability are intermittent fever, articular rheumatism, typhoid fever, and bronchitis, in the order of their relative importance. The constant non-effective rate for this period was 28.21, and for the year (still excluding the above-mentioned diseases and injuries), 23.93 per 1,000 of mean strength.

According to this calculation the period of least sickness, as before, comprised the months of April and May, but the constant non-effective rate was 19.05 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—*Kennebec Arsenal, Maine*, furnished the highest admission rate for the year, 2,500 per 1,000 of mean strength; but, as this rate is based upon a mean strength of only 16 men, it is not considered reliable. The next highest admission rate, 2,093.75, was reported at *Fort Myer, Va.* The highest non-effective rate, 59.67 per 1,000, was that of *Fort McHenry, Md.*, and the highest death rate, 29.41 per 1,000, that of *Frankford Arsenal, Pa.*

CIVILIANS WITH COMMAND.—With a mean strength of 917 officers and enlisted men serving in the region, there was constantly present during the year an average of 1,098 civilians. Of this number 181 were adult males, 424 adult females, and 493 children. The admissions to sick report numbered, for the adult males 72, and the deaths 1; for the adult females 451, and the deaths 4; for the children 606, and the deaths 6; or an aggregate of 1,129 admissions and 11 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of November, the prevailing diseases being those of the respiratory and digestive systems.

The *least sickness* among civilians was reported during the month of June.

REGION OF THE APPALACHIAN MOUNTAINS.

There are but two permanent military stations in the whole area, both arsenals, and occupied by a very small number of men.

The following table shows the stations in the region of the Appalachian Mountains, with mean strength of command, and ratios of admission to sick report, constant non-effectiveness, discharges and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Watervliet Arsenal, N. Y.	40	52	0	61	1,525.00	1.31	32.67	.....	1
Allegheny Arsenal, Pa.	28	20	4	24	857.14	.47	16.64	.....	2
Total.....	68	72	13	85	1,250.00	1.77	26.07	.....	3

The force serving in this region during the year consisted of two detachments of ordnance.

The mean strength, including officers, was 68 men. The total number of admissions to sick report was 85; of this number 71 were treated in quarters and 14 in hospital. The number of men daily non-effective on account of sickness averaged, in quarters 1.02, in hospital .75, total 1.77; from disease 1.55, injury .22. No discharges for disability occurred during the year. The deaths numbered, in quarters 2, in hospital 1, total 3; for disease 3, injury, none.

The admission rate per 1,000 of mean strength was 1,250 for all men who were excused from any part of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 206. The ratio of deaths per 1,000 of mean strength was 44.12, in the proportion of 29.41 in quarters, and 14.71 in hospital; 44.12 from disease, and none from injury. The ratio of constant non-effectiveness was 26.07, in the proportion of 14.98 in quarters, and 11.09 in hospital; 22.85 for disease, and 3.22 for injury.

The average duration of each case of sickness was, for those treated in quarters 5 days, in hospital 20 days; for disease 7.9 days, for injury 6.1 days; for all cases admitted 7.6 days; and the total loss of time on account of sickness averaged 10 days for each soldier in the command.

The average duration of treatment for all patients who recovered and were returned to duty was 5 days, and for those who died 7 days. The ratio of recoveries per 1,000 of all admissions to sick report was 859, and of deaths 35.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Specific febrile and acute infectious diseases.....	187	33.4	5	1		6.73	73.53	14.71	.....
Venereal diseases.....	87	21.7	4			3.51	58.82		.....
Diseases of the digestive system.....	86	9.6	9			3.46	132.35		.....
Injuries.....	80	6.2	13			3.22	191.18		.....
Diseases of the locomotor system.....	62	6.9	9			2.50	132.35		.....
Diarrhœal diseases.....	60	3.2	19			2.42	279.41		.....
Diseases of the respiratory system.....	45	4.5	10	2		1.81	147.06	29.41	.....
Constitutional diseases.....	22	5.5	4			.89	58.82		.....
Diseases of the nervous system.....	16	2.7	6			.65	88.24		.....
Diseases of the integumentary system.....	11	11.0	1			.44	14.71		.....
Malarial diseases.....	9	2.2	4			.36	58.82		.....
Dietic diseases.....	2	2.0	1			.08	14.71		.....
Total.....	647	7.6	85	3		26.07	1,250.00	44.12	.....

SPECIAL DISEASES.—For *pneumonia* the admission rate was 29.41 per 1,000 of mean strength; for *bronchitis*, 102.94; for *catarrh and common colds*, 14.71; for *acute articular rheumatism*, 14.71; for *articular rheumatism (subacute and chronic)*, 44.12; for *muscular rheumatism*, 102.94; for *diarrhœa (acute and chronic)*, 264.70; for *cholera morbus*, 14.71; for *paroxysmal (malarial) fevers*, 58.82, and for *typhoid fever*, 29.41.

Of the class of *specific febrile and acute infectious diseases* 5 admissions to sick report, or a rate of 73.53 per 1,000 of mean strength, were reported in the whole region during the year.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury the period of *greatest sickness* among the troops serving in the region of the Appalachian Mountains during the year comprised the months of November and December. During this period the number constantly non-effective averaged 71.87 per 1,000 of mean strength, and the principal causes of this non-effectiveness were typhoid fever, injuries, and venereal diseases.

December showed a greater number of admissions to sick report than any other month of the year, the rate per 1,000 of mean strength being 197.53, also a higher rate of constant non-effectiveness, 90 per 1,000.

The period of *least sickness* was during April and May, the constant non-effective rate being 2.68 per 1,000 of mean strength.

In the above computation all cases of disease and injury have been included. Excluding from the calculation injuries, venereal diseases, and alcoholism, the period of greatest sickness remains unchanged, but the principal diseases were typhoid fever, enteritis, and synovitis, and the constant non-effective rate 53.52 per 1,000 of mean strength, that for the year being 19.26.

Excluding injuries, venereal diseases, and alcoholism, the period of least sickness covered the months of May and June, the constant non-effective rate being 1.34 per 1,000 of mean strength.

CIVILIANS WITH COMMAND.—With a mean strength of 68 officers and enlisted men serving in the region, there was constantly present during the year an average of 132 civilians. Of this number 8 were adult males, 48 adult females, and 76 children. The admissions to sick report numbered for the adult males 3, with no deaths; for the adult females 36, with no deaths; for the children 45, and the deaths 3, or an aggregate of 84 admissions and 3 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of January, the prevailing diseases being those of the respiratory system.

The *least sickness* was reported during the month of September.

REGION OF THE NORTHERN LAKES.

There are 12 military stations in this area, ranging in elevation from 262 to 840 feet above the level of the sea.

The following table shows the stations in the region, with mean strength of command, ratios of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Charges for disability.	Deaths.
		Disease.	Injury.	Total.					
Fort Brady, Mich. . .	72	82	26	108	1,500.00	1.65	22.90	.....	.....
Fort Mackinac, Mich. .	73	52	20	72	966.30	2.22	30.48	4	1
Saint Paul, Minn. . .	29	1	.....	1	34.48	.....	.10	.....	.....
Fort Snelling, Minn. .	300	138	56	194	646.67	7.02	23.41	11	2
Plattsburgh Barracks, N. Y. . .	41	20	6	26	634.15	1.03	25.12	.....	.....
Madison Barracks, N. Y. . .	225	164	47	211	937.78	6.66	29.59	2	2
Fort Ontario, N. Y. . .	41	39	5	44	1,073.17	1.41	34.34	1	1
Fort Niagara, N. Y. . .	87	44	12	56	643.68	1.68	19.37	3	.....
Fort Porter, N. Y. . .	75	72	19	91	1,213.33	2.39	31.93	.....	1
Fort Wayne, Mich. . .	166	204	33	237	1,427.71	6.00	36.13	4	4
Chicago, Ill.	51	10	2	12	235.29	.46	9.08	.....	.....
Camp at Highwood, Ill.	12	7	3	10	833.33	.21	17.83	.....	.....
Field	35	12	3	15	428.57	.30	8.60	.....	.....
Total	1,207	845	232	1,077	892.29	31.05	25.72	25	11

The force serving in this region during the year consisted of two entire regiments and a portion of a third regiment of infantry, and one battery of artillery; also, one troop of cavalry for 20 days only.

The mean strength, including officers, was 1,207 men, of whom 1,000 were white and 207 colored. The total number of admissions to sick report was 1,077. Of this number 416 were treated in quarters, 646 in hospital, and 15 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 10, in hospital 21, total 31; from disease 24, injury 7.

The discharges for disability numbered, from quarters 10, hospital 15, total 25; for disease 25, injury 0. The deaths numbered, in quarters 8, hospital 3, total 11; from disease 4, injury 7.

The admission rate per 1,000 of mean strength was 892 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 535. The ratio of deaths per 1,000 of mean strength was 9.11, in the proportion of 2.48 in hospital and 6.63 in quarters; 3.31 from disease, and 5.80 from injury. The ratio of discharges for disability was 20.71, in the proportion of 12.43 in hospital, and 8.28 in quarters; 20.71 from disease, and none from injury. The ratio of constant non-effectiveness on account of sickness was 25.72, in the proportion of 17.66 in hospital, 7.81 in quarters, and .25 in the field; 19.55 from disease, and 6.17 from injury.

The average duration of each case of sickness was, for those treated in hospital 12 days; in quarters 8 days, in the field 7 days; for disease 10 days, for injury 12 days; for all cases admitted 11 days; and the total loss of time on account of sickness averaged 9 days for each soldier in the command.

The average duration of treatment for patients who recovered and

were returned to duty was 9 days, for those who were discharged for disability 50 days, and for those who died 13 days. The ratio of recoveries per 1,000 of all admissions to sick report was 956, of discharges for disability 23; and of death 10.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region of the Northern Lakes during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios per 1,000 of mean strength of admissions, constant non-effectiveness, discharges and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases. (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Injuries	2,717	11.7	232	7	.....	6.17	192.21	5.80	.....
Veneral diseases	1,856	21.1	88	.....	6	4.21	72.91	.....	4.97
Diseases of the digestive system	841	5.5	152	.....	4	1.91	125.93	.....	3.31
Diseases of the respiratory system	770	7.3	106	1	3	1.75	87.82	.83	2.49
Diseases of the nervous system	728	13.7	53	.....	1	1.65	43.91	.....	.83
Diseases of the integumentary system	630	10.0	62	.....	.....	1.41	51.37	.....	.....
Malarial diseases	475	9.0	53	.....	.....	1.08	43.91	.....	.....
Diseases of the locomotor system	466	11.9	39	.....	1	1.06	32.31	.....	.83
Diseases of the circulatory system	462	46.2	10	2	3	1.05	8.29	1.66	2.49
Diseases of the eye	459	17.7	26	.....	2	1.04	21.54	.....	1.66
Specific febrile and acute infectious diseases	351	25.1	14	.....	.....	.80	11.60	.....	.....
Constitutional diseases	339	14.1	24	.....	2	.77	19.88	.....	1.66
Diarrhœal diseases	316	3.1	101	.....	.....	.72	83.68	.....	.....
Diseases of the genito-urinary system (non-venereal)	266	14.8	18	.....	.....	.60	14.91	.....	.....
Diseases of the lymphatic system	198	39.6	5	.....	.....	.45	4.14	.....	.....
Dietic diseases	133	2.8	48	.....	1	.30	39.77	.....	.83
Zoogenous diseases	113	5.4	21	.....	.....	.26	17.40	.....	.....
Septic diseases	72	24.0	3	1	.....	.16	2.49	.83	.....
Developmental diseases	36	12.0	3	.....	2	.08	2.49	.....	1.66
Parasitic diseases	30	4.3	7	.....	.....	.07	5.80	.....	.....
Diseases of the nose	9	4.5	2	.....	.....	.02	1.66	.....	.....
Diseases of the ear	9	9.0	1	.....	.....	.02	.83	.....	.....
Unclassified diseases	67	7.4	9	.....	.....	.15	7.46	.....	.....
Total	11,333	10.5	1,077	11	25	25.72	892.29	9.11	20.71

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 4.14 per 1,000 of mean strength; for *pneumonia* it was .83; for *pleuritis*, 1.66; for *bronchitis*, 52.20; for *catarrh and common colds*, 23.20; for *acute articular rheumatism*, 0; for *articular rheumatism (subacute and chronic)*, 17.40; for *muscular rheumatism* 29.83; for *cholera morbus*, 9.95; for *diarrhœa (acute and chronic)*, 68.76; for *dysentery (acute and chronic)*, 4.97; for *paroxysmal (malarial) fevers*, 43.91; for *typhoid fever*, 2.49.

Of the class of *specific febrile and acute infectious diseases*, 14 admissions to sick report, or a rate of 11.60 per 1,000 of mean strength, were reported for the region during the year; of this number 4 cases, or a rate of 19.32 per 1,000 of mean strength, occurred among the colored troops.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Northern Lakes during the year comprised the months of January and February. The constant non-effective rate for this period was 30.83 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, venereal diseases, injuries, rheumatism, tonsillitis, catarrh, and bronchitis.

August showed a greater number of admissions to sick report than any other month of the year, its rate being 101.33 per 1,000 of mean strength; but the number constantly non-effective from sickness was greater in January, the ratio per 1,000 of mean strength being 31.85. The greatest number of deaths in any one month was 4, reported for September.

The period of *least sickness* appears to have been during the months of April, May, and June, the constant non effective rate for this period being 23.50 per 1,000 of mean strength.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal diseases, and alcoholism are excluded, it is found that the period of greatest sickness covered the months of July and August, and the prevailing causes of disability were diarrhoeal diseases, malarial fevers, diseases of the eye, boils and abscesses, neuralgia and other disorders of the nervous system. The constant non-effective rate for this period was 18.21 per 1,000 of mean strength, that for the whole year being 15.04.

Excluding injuries, venereal diseases and alcoholism, the period of least sickness comprised the months of November and December, the constant non-effective rate being 12.62 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—*Fort Brady, Mich.*, furnished the highest admission rate for the year, 1,500 per 1,000 of mean strength; *Fort Wayne, Mich.*, the highest non-effective rate, 36.13 per 1,000; also the highest death-rate, 24.10. (*Fort Ontario, N. Y.*, furnished a higher death-rate, 24.39 per 1,000, but this is considered accidental, resulting from 1 death in a mean strength of 41 men.)

COLORS TROOPS.—The mean strength of colored troops stationed in the region of the Northern Lakes was 207. Their admission rate for the year was lower than that of the white troops, being 574.88, as against 958.00 per 1,000 of mean strength for the latter. Their constant non-effective rate from sickness was also lower, being 19.27 against 27.06.

Excluding from the calculation injuries, venereal diseases, and alcoholism, so as to estimate more accurately the effect of locality, it appears that the difference between the two races in respect of their rates of constant non-effectiveness on account of sickness becomes much less, that of the colored being 12.96 per 1,000 of mean strength, and of the white, 15.47. The period of *greatest sickness* among these troops (excluding the above diseases and injuries) occurred during the months of April and May, there being an average of 25.74 per 1,000 of mean strength constantly non-effective during those months.

In this region the greatest disparity between the two races is observed to exist in the rates of occurrence of the following diseases: Diarrhoeal diseases and malarial fevers in favor of the colored troops, their rates for these diseases being 14.49 and 0.00, and those of the white troops, 98.00 and 53.00, per 1,000 of mean strength, respectively; in favor of the white troops, articular rheumatism, mumps, and pulmonary phthisis, their rates being 16.00, 1.00, 3.00, and those of the colored, 24.15, 14.49, and 9.66, per 1,000 of mean strength.

CIVILIANS WITH COMMAND.—With a mean strength of 1,207 officers and enlisted men serving in the region, there was constantly present during the year an average of 994 civilians. Of this number 143 were adult males, 426 adult females, and 425 children. The admissions to sick report numbered for the adult males 64, and the deaths 4; for the adult females 481, and the deaths 3; for the children 359, and the deaths 4; or an aggregate of 904 admissions and 11 deaths.

The period of *greatest sickness* among the civilian attachés covered the month of February, the prevailing diseases being those of the respiratory and nervous systems.

The *least sickness* was reported during the month of October.

REGION OF CENTRAL TIMBERED PLAINS AND HILLS.

Two or more subdivisions of this region might properly be made, but, as the number of garrisoned posts within its limits is small, it has not been thought advisable to arrange them in groups for purposes of comparison, as has been done in other regions.

Six military stations in this area were occupied by troops during the year; they range in elevation from 155 to 740 feet above the level of the sea.

The following table shows the stations in the region of Central Timbered Plains and Hills, with mean strength of command, rates of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Columbus Barracks, Ohio	399	689	86	775	1,942.36	29.73	74.52	16	2
Newport Barracks, Ky	40	28	4	32	800.00	.97	24.32	1	.....
Indianapolis Arsenal, Ind	27	49	6	55	2,037.04	1.50	55.41	1	.....
Jefferson Barracks, Mo	669	1,201	226	1,427	2,133.03	64.75	96.79	15	19
Little Rock Barracks, Ark	104	157	24	181	1,740.38	3.98	38.31	3	.....
Mount Vernon Barracks, Ala	70	60	15	75	1,071.43	2.57	36.71	2	2
Total	1,309	2,184	361	2,545	1,944.23	103.50	79.07	38	23

The force serving in this region during the year consisted of five batteries of artillery, one detachment of ordnance, and the unassigned recruits at the recruiting depots at Columbus Barracks, Ohio, and Jefferson Barracks, Mo.

The mean strength, including officers, was 1,309, of whom 1,172 were white, and 137 colored. The total number of admissions to sick report was 2,545; of this number, 1,099 were treated in quarters, and 1,446 in hospital. The number of men daily non-effective on account of sickness averaged, in quarters 24, in hospital 79, total 103; from disease 91, injury 12. The discharges for disability numbered, from quarters 5, hospital 33, total 38; for disease 35, for injury 3. The deaths numbered, in quarters 4, hospital 19, total 23; from disease 21, injury 2.

The admission rate per 1,000 of mean strength was 1,944 for all men who were excused from any portion of their military duty on account of *sickness*, but for those cases which required admission to hospital the

rate was 1,105. The ratio of deaths per 1,000 of mean strength was 17.57, in the proportion of 14.51 in hospital, and 3.06 in quarters; 16.04 from disease, and 1.53 from injury; that of discharges for disability was 29.03, in the proportion of 25.21 from hospital, and 3.82 from quarters; 26.74 for disease, and 2.29 for injury. The ratio of constant non-effectiveness on account of sickness was 79.07, in the proportion of 60.37 in hospital, and 18.70 in quarters; 69.88 from disease, and 9.19 from injury.

The average duration of each case of sickness was, for those treated in hospital 20 days, in quarters 8 days; for disease 15.3 days, for injury 12.2 days; for all cases admitted 14.8 days; and the total loss of time on account of sickness averaged 29 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 14 days, for those who were discharged for disability 92 days, and for those who died 45 days. The ratio of recoveries per 1,000 of all admissions to sick report was 917, of discharges for disability 15, and of deaths 9.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Malarial diseases.....	6,493	15.2	427	3	.....	13.59	326.20	2.29	.....
Veneral diseases.....	5,957	21.8	273	.....	12	12.47	208.55	.....	9.17
Injuries.....	4,892	12.2	361	2	3	9.19	275.78	1.53	2.29
Zoögenous diseases.....	3,822	15.9	240	.....	.....	8.00	163.35	.....	.....
Diseases of the respiratory system.....	2,373	17.4	136	7	4	4.97	103.90	5.35	3.06
Diarrhoeal diseases.....	2,292	7.7	298	.....	1	4.80	227.65	.....	.76
Diseases of the digestive system.....	2,080	8.8	237	2	.....	4.35	181.05	1.53	.....
Specific febrile and acute infectious diseases.....	1,878	31.3	60	4	.....	3.93	45.84	3.00	.....
Diseases of the nervous system.....	1,535	17.1	90	1	5	3.21	68.75	.76	3.82
Diseases of the integumentary system.....	1,528	10.1	151	.....	1	3.20	115.36	.....	.76
Diseases of the locomotor system.....	1,468	21.6	68	.....	3	3.07	51.95	.....	2.29
Constitutional diseases.....	1,267	31.7	40	1	5	2.65	30.56	.76	3.82
Diseases of the eye.....	850	18.1	47	.....	.....	1.78	35.91	.....	.....
Diseases of the genitourinary system (non-venereal).....	585	17.2	34	1	2	1.22	25.97	.76	1.53
Diseases of the lymphatic system.....	446	55.7	8	.....	.....	.93	6.11	.....	.....
Diseases of the circulatory system.....	245	49.0	5	1	.....	.51	3.82	.76	.....
Diseases of the ear.....	132	11.0	12	.....	.....	.28	9.17	.....	.....
Parasitic diseases.....	113	8.1	14	.....	.....	.24	10.70	.....	.....
Dietic diseases.....	96	4.6	21	.....	.....	.20	16.04	.....	.....
Developmental diseases.....	69	69.0	1	.....	1	.14	.76	.76	.76
Septic diseases.....	67	11.2	6	.....	.....	.14	4.58	.....	.....
Diseases of the nose.....	11	11.0	1	.....	.....	.02	.76	.....	.....
Unclassified diseases.....	89	5.3	15	.....	1	.17	11.46	.....	.76
Total.....	37,779	14.8	2,545	23	38	79.07	1,944.23	17.57	29.03

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 5.35 per 1,000 of mean strength; for *pneumonia* it was 17.57, for *pleuritis*, 3.82; for *bronchitis*, 58.82; for *catarrh and common colds*, 16.04; for *acute articular rheumatism*, 12.99; for *articular rheumatism (subacute and chronic)*, 15.28; for *muscular rheumatism*, 48.13; for *cholera morbus*, 16.04; for *diarrhœa (acute and chronic)*, 207.79; for *dysentery (acute and chronic)*, 3.82; for *paroxysmal (malarial) fevers*, 326.20; for *typhoid fever*, 7.64.

Of the class of *specific febrile and acute infectious diseases* 60 admissions to sick report, or a rate of 45.84 per 1,000 of mean strength, were reported for the region during the year; of this number, 12 cases, or a rate of 87.59 per 1,000 of mean strength, occurred among the colored troops.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of Central Timbered Plains and Hills during the year comprised the months of February, March, and April. During this period the number constantly non-effective on account of sickness averaged 94.28 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, malarial fevers, venereal diseases, vaccina, diarrhœal diseases, and injuries.

December showed a greater number of admissions to sick report than any other month of the year, the ratio per 1,000 of mean strength being 195.97. The number constantly non-effective on account of sickness was greatest in April, the ratio being 98.34 per 1,000 of mean strength.

The period of *least sickness* appears to have been during the months of October and November, the constant non-effective rate being 62.12 per 1,000 of mean strength.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal diseases, and alcoholism are excluded from the calculation, it is found that, while the period of greatest sickness remains unchanged, the prevailing causes of sickness were malarial fevers, vaccina, diarrhœa, and rheumatism, in the order of their relative importance, and that the constant non-effective rate was 72.48, that for the year being 57.21.

Excluding injuries, venereal diseases, and alcoholism, the period of least sickness also remains unchanged, but the rate of constant non-effectiveness was 44.99 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—*Jefferson Barracks, Mo.*, furnished the highest admission rate for the year, 2,133.03 per 1,000 of mean strength; also, the highest constant non-effective rate, 96.79 per 1,000. The highest death-rates were those of *Mount Vernon Barracks, Ala.*, and *Jefferson Barracks, Mo.*, 28.57 and 28.40 per 1,000 of mean strength. This excessive rate may have been accidental at the former station, where but 2 deaths furnished the basis for the calculation, but not at the latter, where 19 deaths occurred during the year.

COLORED TROOPS.—The mean strength of colored troops serving in the region was 137. Both the admission rate and the constant non-effective rate were higher for the colored than for the white troops; for the former they were respectively 2,357.66 and 104.57, and for the latter 1,895.90 and 76.09, per 1,000 of mean strength. Excluding from the calculation injuries, venereal diseases, and alcoholism, the difference between the admission rates of the two races becomes greater, that of the colored troops being 1,875.91, against 1,393.34 for the white. Less difference existed between the constant non-effective rates, that of the former being 79.69, and for the latter 54.58.

During the months of April, May, and June (exclusive of injuries, venereal diseases, and alcoholism), the average monthly admission rate was much greater for the colored troops than for the white, being 204.11 per 1,000 of mean strength for the former, and 118.98 for the latter. The diseases, in the rates of occurrence of which the greatest disproportion between the two races is observed to exist, are bronchitis, which caused for the year an admission rate of 131.39 for the colored soldier, and 50.34 for the white; measles, 58.39 for the former, and 29.86 for the latter; pneumonia and tonsillitis, 29.20 and 116.79 respectively for the colored, and 16.21 and 79.35 for the white.

During the months of March, April, and May occurred the period of greatest sickness among the colored troops, their monthly admission rate for diarrhœa alone averaging 43.58 per 1,000 of mean strength, while that of the white troops was 11.30.

December gave the highest admission rate, 246.27 per 1,000 of mean strength, injuries, venereal diseases, and alcoholism excluded.

CIVILIANS WITH COMMAND.—With a mean strength of 1,309 officers and enlisted men serving in the region, there was constantly present during the year an average of 426 civilians. Of this number, 41 were adult males, 191 adult females, and 194 children. The admissions to sick report numbered for the adult males 11, and the deaths 3; for the adult females 114, and the deaths 1; for the children 184, and the deaths 4; or an aggregate of 309 admissions and 8 deaths.

The period of *greatest sickness* among civilian attachés covered the month of December, the prevailing diseases being those of the respiratory system.

The *least sickness* was reported during the month of September.

REGION OF THE GULF COAST.

The stations in this region occupied by troops during the year were 4 in number, ranging in elevation from 10 to 52 feet above the level of the sea.

The following table shows the stations in the region, with mean strength of command, ratios of admissions to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Fort Barrancas, Fla....	81	72	12	84	1,037.04	2.76	34.06	3	.....
Jackson Barracks, La...	78	62	7	69	884.62	1.49	19.08	.....	1
New Orleans, La.....	8	3	.....	3	375.00	.45	55.87	.....	.....
Fort Brown, Tex.....	132	165	44	209	1,583.33	10.16	76.94	16	.....
Field.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	300	302	63	365	1,216.67	14.85	49.50	19	2

The force serving in this region during the year consisted of 4 batteries of artillery, 2 troops of cavalry, and 1 company of infantry.

The mean strength, including officers, was 300 men. The total number of admissions to sick report was 365; of this number 136 cases were treated in quarters, and 229 in hospital. The number of men daily non-effective on account of sickness averaged, in quarters 4, in hospital 11, total 15; from disease 13, injury 2. The discharges for disability numbered, from quarters 2, hospital 17, total 19; for disease 18, injury 1.

There were 2 deaths, both from disease, and both patients treated in hospital.

The admission rate per 1,000 of mean strength was 1.217 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to the hospital the rate was 763. The ratio of deaths per 1,000 of mean strength was 6.67, all in hospital; that of discharges for disability was 63.33, in the proportion of 56.66 from hospital and 6.67 from quarters; 60 for disease, and 3.33 for injury. The ratio of constant non-effectiveness on account of sickness was 49.50, in the proportion of 36.83 in hospital and 12.62 in quarters; 42.74 from disease, and 6.76 from injury.

The average duration of each case of sickness was, for those treated in hospital 15 days, in quarters 10 days; for disease 15.5 days, and for injury 11.7 days; for all cases admitted 14.8 days. The total loss of time on account of sickness averaged 18 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 12 days, for those who were discharged for disability 99 days, and for those who died 20 days. The ratio of recoveries per 1,000 of all admissions to sick report was 942, of discharges for disability 52, and of deaths 5.

The following table shows the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the region of the Gulf Coast during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios per 1,000 of mean strength of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

Classified causes.	Time lost—		Number of—		Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths. Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths. Discharges.	
Veneral diseases.....	1,823	44.6	41	11	16.69	126.67	36.67	
Injuries.....	749	11.7	63	1	6.76	210.00	3.33	
Malarial diseases.....	492	8.1	61	1	4.49	203.33	3.33	
Diseases of the circulatory system.....	296	295.0	1	1	2.60	2.33	2.33	
Diseases of the integumentary system.....	265	7.5	38		2.60	126.67		
Constitutional diseases.....	267	17.8	15	1	2.44	50.00	3.33	
Diseases of the digestive system.....	255	8.0	32	2	2.33	106.67	6.67	
Diseases of the respiratory system.....	222	11.1	20	2	2.03	66.67	6.67	
Diarrhoeal diseases.....	203	8.8	23		1.85	76.67		
Diseases of the eye.....	146	36.5	4	1	1.33	13.33	3.33	
Diseases of the locomotor system.....	128	14.2	9		1.17	30.00		
Diseases of the genito-urinary system (non-venereal).....	121	30.2	4		1.11	13.33		
Diseases of the lymphatic system.....	110	27.5	4		1.00	13.33		
Diseases of the nervous system.....	103	5.4	19		.94	63.33		
Dietic diseases.....	65	2.9	19	1	.50	63.33	3.33	
Specific febrile and acute infectious diseases.....	14	14.0	1		.13	3.33		
Zoögenous diseases.....	6	3.0	2		.06	6.67		
Unclassified diseases.....	150	16.7	9		1.37	30.00		
Total.....	5,420	14.8	365	2 19	49.50	1,216.67	6.67 63.33	

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 10.00 per 1,000 of mean strength; for *pleuritis* it was 3.33; for *bronchitis*, 13.33; for *catarrh and common colds*, 40.00; for *articular rheumatism (subacute and chronic)*, 50.00; for *muscular rheumatism*, 26.67; for *cholera morbus*, 3.33; for *diarrhœa*, 60.00; for *dysentery*, 13.33; for *paroxysmal (malarial) fevers*, 203.33. No cases of *pneumonia*, *acute articular rheumatism*, or *typhoid fever* were reported.

Of the class of *specific febrile and acute infectious diseases*, only 1 admission to sick report, or a rate of 3.33 per 1,000 of mean strength, was reported during the year.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among troops serving in the region of the Gulf Coast during the year comprised the months of September and October, when the constant non-effective rate was 64.44. The principal causes of this non-effectiveness were, in the order of their relative importance, syphilis, malarial fever, conjunctivitis, and pulmonary phthisis. The rate of constant non-effectiveness for the year was 49.50 per 1,000 of mean strength.

November showed a greater number of admissions to sick report than any other month of the year, the ratio per 1,000 of mean strength being 137.20; but the number constantly non-effective on account of sickness was greatest in September, the ratio per 1,000 of mean strength being 74.56.

The period of *least sickness* appears to have been during the months of April and May, the constant non effective rate being 40.01 per 1,000 of mean strength.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are excluded from the calculation, it is found that, while the period of greatest sickness remains unchanged, the prevailing causes of sickness were malarial fevers, conjunctivitis, pulmonary phthisis, and muscular rheumatism, in the order of their relative importance, and that the constant non-effective rate was 43.81, that for the year being 32.80 per 1,000 of mean strength.

According to this calculation the period of least sickness comprised the months of January, February, and March, the constant non-effective rate for this period being 16.31 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—*Fort Brown, Tex.*, furnished the highest admission rate for the year, 1,583.33 per 1,000 of mean strength, also the highest constant non-effective rate, 76.94 per 1,000; *Jackson Barracks, La.*, the highest death-rate, 12.82 per 1,000 of mean strength.

No colored troops were stationed in this region during the year.

CIVILIANS WITH COMMAND.—With a mean strength of 300 officers and enlisted men serving in the region, there was constantly present during the year an average of 257 civilians. Of this number 39 were adult males, 80 adult females, and 138 children. The admissions to sick report numbered for the adult males 8, and the deaths 1; for the adult females 35, and the deaths 1; and for the children 47, and the deaths 2; or an aggregate of 90 admissions and 4 deaths.

The period of *greatest sickness* among the civilian attachés covered the month of May, the prevailing diseases being those of the digestive system and measles.

The *least sickness* was reported during the month of July.

REGION OF THE PRAIRIES.

Of the 22 military stations within the limits of this region, none has an altitude of over 2,000 feet; 16 are between 1,000 and 2,000, and 6 between 500 and 1,000 feet above the level of the sea.

For purposes of comparison the posts in the region have been divided into three groups—the northern, middle, and southern.

The following table shows the stations in the region of the Prairies, with mean strength of command, rates of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Northern group:									
Fort Pembina, Dak.	84	125	42	167	1,988.10	4.16	49.55	4	1
Fort Totten, Dak.	124	83	30	113	911.29	2.66	21.48	5	2
Fort Sisseton, Dak.	98	67	27	94	959.18	3.20	32.62	.....	1
Fort Buford, Dak.	278	189	71	260	935.25	11.73	42.18	7	1
Fort A. Lincoln, Dak.	113	86	28	114	1,008.85	3.84	33.99	4	1
Fort Yates, Dak.	269	228	77	305	1,133.83	10.17	37.81	6	1
Fort Bennett, Dak.	46	31	8	39	847.83	1.55	33.65	.....	.....
Fort Sully, Dak.	166	163	48	211	1,271.08	5.88	35.43	1	.....
Fort Randall, Dak.	169	152	61	213	1,280.36	8.50	50.27	2	.....
In the field.	2	.....	1	1	500.00	.01	7.00	.....	.....
Total.	1,349	1,124	393	1,517	1,124.54	51.70	38.32	29	6
Middle group:									
Rock Island Arsenal, Ill.	58	88	8	96	1,655.17	1.41	24.33	.....	.....
Fort Omaha, Nebr.	411	657	107	764	1,858.88	29.76	72.42	15	2
Omaha City (headquarters Department of the Platte), Nebr.	31	6	1	7	225.81	.63	20.23	.....	.....
Fort Leavenworth (post), Kans.	600	560	126	686	1,143.33	24.15	40.25	13	3
Fort Leavenworth (prison guard), Kans.	109	77	3	80	733.94	2.04	18.70	.....	.....
Leavenworth City, Kans.	7	3	.....	3	428.57	.08	11.00	.....	.....
Fort Leavenworth (headquarters Department of Missouri), Kans.	24	3	.....	3	125.00	.02	.92	1	.....
Fort Riley, Kans.	321	377	62	439	1,367.60	14.15	44.07	10	2
Fort Gibson, Ind. T.	87	128	26	154	1,770.11	5.58	64.11	4	2
Fort Sill, Ind. T.	282	403	89	492	1,744.68	18.56	65.82	11	4
In the field.	119	150	35	185	1,554.62	2.66	22.31	.....	1
Total.	2,049	2,452	457	2,909	1,419.72	99.04	48.33	54	11
Southern group:									
Fort Concho, Tex.	172	214	114	328	1,906.98	9.86	57.33	3	.....
San Antonio (post), Tex.	375	468	101	589	1,570.67	19.35	51.59	18	2
San Antonio (headquarters Department Texas), Tex.	30	23	.....	23	766.67	1.96	65.20	.....	.....
Camp Langtry, Tex.	20	12	3	15	750.00	.26	13.15	.....	.....
In the field.	50	42	12	54	1,080.00	.62	12.50	.....	.....
Total.	647	779	230	1,009	1,559.51	32.05	49.54	21	2
Total for region ..	4,045	4,255	1,080	5,435	1,343.63	182.79	45.19	104	23

The force serving in this region during the year consisted of portions of 6 regiments of cavalry, and of 15 regiments of infantry, together with 2 batteries of artillery. Detachments of Indian scouts were also in service, but they are not included in computing the mean strength of command, or any of the ratios given below, for reasons which are stated at length in the section of this report devoted to the consideration of the health of the whole Army.

The mean strength, including officers, was 4,045 men, of whom 3,724 were white, and 321 colored. The total number of admissions to sick report was 5,435; of this number 2,848 were treated in quarters, 2,347

in hospital, and 240 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 64, in hospital 116, and in the field 3, total 183; from disease 146, injury 37. The discharges for disability numbered, from quarters 25, hospital 79, total 104; for disease 94, injury 10. The deaths numbered, in quarters 8, hospital 13, in the field 1, total 22; from disease 14, injury 8.

The admission rate per 1,000 of mean strength was 1,344 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 580. The ratio of deaths per 1,000 of mean strength was 5.44, in the proportion of 3.21 in hospital, 1.98 in quarters, and .25 in the field; 3.46 from disease, and 1.98 from injury. The ratio of discharges for disability was 25.71, in the proportion of 19.53 from hospital, and 6.18 from quarters; 23.24 for disease, and 2.47 for injury. The constant non-effective rate was 45.19, in the proportion of 28.57 in hospital, 15.81 in quarters, and .81 in the field; 36.08 from disease, and 9.11 from injury.

The average duration of each case of sickness was, for those treated in hospital 18 days, in quarters 8 days, in the field 5 days; for disease 12 days, and for injury 12 days; for all cases admitted 12 days; and the total loss of time on account of sickness averaged 16 days for each soldier in the command.

The average duration of treatment for all patients who recovered and were returned to duty was 10 days, for those who were discharged for disability 84 days, and for those who died 27 days. The ratio of recoveries per 1,000 of all admissions to sick report was 955, of discharges for disability 19, and deaths 4.

The admission rate per 1,000 of mean strength was highest in the southern group of posts, being 1,560; it was lowest in the northern group, 1,125; in the middle it was 1,420. The death rate was lowest in the southern group, being 3.09 per 1,000 of mean strength, as against 6.83 in the middle and 4.45 in the northern. The number of deaths per 1,000 of all admissions to sick report was 1.98 in the southern, 3.95 in the northern, and 4.81 in the middle group. The death rates for the previous year were 8, 12, and 14 per 1,000 of mean strength, respectively, for the northern, middle, and southern groups.

The constant non-effective rate was lowest in the northern group, being 38.32 per 1,000 of mean strength, as against 48.33 per 1,000 in the middle group, and 49.54 in the southern.

The ratio of discharges for disability per 1,000 of mean strength was highest in the southern group, being 32.46, against 21.50 in the northern, and 26.35 in the middle group, while the average duration of treatment prior to discharge was longest in the northern group, being 94 days, against 59 in the southern and 83 in the middle group. The average duration of treatment for patients who died was longest in the middle group, 33 days, and shortest in the southern, 10 days; it was 18 days in the northern group. For patients who recovered and returned to duty the duration of treatment was shortest, 9 days, in the northern group, while in both the middle and southern groups it averaged 11 days.

The following table shows for each group of posts in the region of the Prairies, and for the whole region, the number and classified causes of all admissions to sick report, deaths, and discharges occurring during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance, as determined by the degree of impairment of force produced by each:

NORTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	4,427	11.3	393	2	4	8.99	291.33	1.48	2.97
Diseases of the locomotor system	1,883	17.8	106	.....	4	3.82	78.58	.....	2.97
Diseases of the integumentary system	1,630	14.2	115	.....	.....	3.31	85.25	.....	.....
Diseases of the respiratory system	1,563	9.2	169	2	3	3.17	125.28	1.48	2.22
Diseases of the nervous system	1,511	14.7	103	.....	3	3.07	76.35	.....	2.22
Diseases of the digestive system	1,486	7.1	208	.....	1	3.02	154.19	.....	.74
Veneral diseases	1,378	27.0	51	.....	4	2.80	37.81	.....	2.97
Diseases of the eye	1,091	47.4	23	.....	2	2.22	17.05	.....	1.48
Diseases of the genito-urinary system (non-veneral)	938	24.7	27	1	4	1.91	20.01	.74	2.97
Constitutional diseases	771	33.5	23	.....	.....	1.57	17.05	.....	.....
Diarrhoeal diseases	538	4.1	130	.....	.....	1.09	90.37	.....	.....
Malarial diseases	400	9.3	43	.....	.....	.81	31.88	.....	.....
Diseases of the circulatory system	269	44.8	6	1	2	.55	4.45	.74	1.48
Diseases of the ear	222	22.2	10	.....	1	.45	7.41	.....	.74
Dietic diseases	204	3.4	60	.....	.....	.41	44.48	.....	.....
Diseases of the lymphatic system	185	26.4	7	.....	.....	.38	5.19	.....	.....
Zoögenous diseases	55	9.2	6	.....	.....	.11	4.45	.....	.....
Typho-malarial fever	52	52.0	1	.....	.....	.11	.74	.....	.....
Specific febrile and acute infectious diseases	29	9.7	3	.....	.....	.06	2.22	.....	.....
Diseases of the nose	21	4.2	5	.....	.....	.04	3.71	.....	.....
Septic diseases	14	14.0	1	.....	.....	.03	.74	.....	.....
Parasitic diseases	4	2.0	2	.....	.....	.01	1.48	.....	.....
Developmental diseases .....	.....	.....	.....	.....	1	.....	.....	.....	.74
Unclassified diseases	199	8.0	25	.....	.....	.40	18.53	.....	.....
Total	18,870	12.4	1,517	6	29	38.32	1,124.54	4.45	21.50

MIDDLE GROUP.

Injuries	6,419	14.0	457	5	4	8.58	223.04	2.44	1.95
Veneral diseases	5,535	33.5	165	.....	10	7.40	80.53	.....	4.88
Malarial diseases	3,555	8.5	417	1	.....	4.75	203.51	.49	.....
Constitutional diseases	2,917	25.8	113	.....	5	3.90	55.15	.....	2.44
Diarrhoeal diseases	2,695	6.3	429	1	.....	3.60	209.37	.49	.....
Diseases of the digestive system	2,399	7.7	312	.....	3	3.21	152.27	.....	1.46
Diseases of the respiratory system	2,326	8.6	271	3	3	3.11	132.26	1.46	1.46
Diseases of the integumentary system	1,788	10.0	178	.....	.....	2.39	86.87	.....	.....
Diseases of the nervous system	1,399	9.1	153	.....	9	1.87	74.67	.....	4.39
Specific febrile and acute infectious diseases	1,223	25.4	49	1	.....	1.64	23.91	.49	.....
Diseases of the genito-urinary system (non-veneral)	1,004	28.7	35	.....	4	1.34	17.08	.....	1.95
Diseases of the locomotor system	866	10.6	82	.....	5	1.16	40.02	.....	2.44
Diseases of the lymphatic system	807	32.3	25	.....	.....	1.08	12.20	.....	.....
Diseases of the circulatory system	747	43.9	17	.....	4	1.00	8.30	.....	1.95
Diseases of the eye	598	17.1	35	.....	.....	.78	17.08	.....	.....
Diseases of the ear	584	30.7	19	.....	2	.78	9.27	.....	.98
Typho-malarial fever	354	59.0	6	3	.....	.47	2.93	1.46	.....
Zoögenous diseases	272	8.5	32	.....	.....	.36	15.62	.....	.....
Dietic diseases	225	2.8	79	.....	.....	.30	38.56	.....	.....
Septic diseases	166	83.0	2	.....	1	.22	.98	.....	.49
Diseases of the nose	64	9.1	7	.....	1	.09	3.42	.....	.49
Parasitic diseases	11	2.7	4	.....	.....	.01	1.95	.....	.....
Developmental diseases .....	.....	.....	.....	.....	2	.....	.....	.....	.98
Unclassified diseases	194	8.8	22	.....	1	.26	10.74	.....	.49
Total	36,148	12.4	2,909	14	54	48.33	1,419.72	6.83	26.35

SOUTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days.)	Average for each case (days.)	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Injuries	2,610	11.3	230	1	2	11.05	355.49	1.55	3.09
Veneral diseases	1,835	27.0	68	.....	8	7.77	105.10	.....	4.64
Malarial diseases	1,178	7.0	168	.....	3	4.99	259.66	.....	1.55
Diseases of the integumentary system	1,045	8.9	117	.....	1	4.43	180.83	.....	1.55
Constitutional diseases	854	24.4	35	.....	8	3.62	54.10	.....	4.64
Diseases of the digestive system	693	9.8	71	.....	.....	2.93	109.74	.....	.....
Diseases of the respiratory system	610	9.5	64	.....	.....	2.58	98.92	.....	.....
Diseases of the nervous system	416	11.9	35	.....	2	1.76	54.10	.....	3.09
Diseases of the locomotor system	414	25.9	16	.....	.....	1.75	24.73	.....	.....
Diseases of the circulatory system	408	29.1	14	1	6	1.73	21.64	1.53	9.27
Diarrhoeal diseases	379	4.1	92	.....	.....	1.60	142.19	.....	.....
Diseases of the genito-urinary system (non-venereal)	372	24.8	15	.....	.....	1.58	23.18	.....	.....
Diseases of the eye	261	13.7	19	.....	2	1.11	29.37	.....	3.09
Specific febrile and acute infectious diseases	211	30.1	7	.....	.....	.89	10.82	.....	.....
Dietic diseases	100	3.3	30	.....	.....	.42	46.37	.....	.....
Diseases of the lymphatic system	95	31.7	3	.....	.....	.40	4.64	.....	.....
Diseases of the ear	81	10.1	8	.....	.....	.34	12.36	.....	.....
Septic diseases	78	19.5	4	.....	.....	.33	6.18	.....	.....
Zoögenous diseases	21	5.2	4	.....	.....	.09	6.18	.....	.....
Parasitic diseases	15	3.7	4	.....	.....	.06	6.18	.....	.....
Diseases of the nose	9	9.0	1	.....	.....	.04	1.55	.....	.....
Developmental diseases .....	.....	.....	.....	.....	1	.....	.....	.....	1.55
Unclassified diseases	14	3.5	4	.....	.....	.06	6.18	.....	.....
Total	11,699	11.6	1,009	2	21	49.54	1,559.51	3.09	82.46

TOTAL FOR THE REGION.

Injuries	13,456	12.5	1,080	8	10	9.11	267.00	1.98	2.47
Veneral diseases	8,748	30.8	284	.....	17	5.93	70.21	.....	4.20
Malarial diseases	5,133	8.2	628	1	1	3.48	155.25	.25	.25
Diseases of the digestive system	4,578	7.7	591	.....	4	3.10	146.10	.....	.99
Constitutional diseases	4,542	26.6	171	.....	8	3.08	42.27	.....	1.98
Diseases of the respiratory system	4,499	8.9	504	5	6	3.05	124.59	1.24	1.48
Diseases of the integumentary system	4,463	10.9	410	.....	1	3.02	101.36	.....	.25
Diarrhoeal diseases	3,612	5.5	651	1	.....	2.45	160.92	.25	.....
Diseases of the nervous system	3,326	11.4	291	.....	14	2.25	71.94	.....	3.46
Diseases of the locomotor system	3,163	15.5	204	.....	9	2.14	50.43	.....	2.22
Diseases of the genito-urinary system (non-venereal)	2,314	41.1	77	1	8	1.57	19.03	.25	1.98
Diseases of the eye	1,950	25.3	77	.....	4	1.32	19.03	.....	.99
Specific febrile and acute infectious diseases	1,463	24.8	59	1	.....	.99	14.59	.25	.....
Diseases of the circulatory system	1,424	38.5	37	2	12	.96	9.15	.49	2.97
Diseases of the lymphatic system	1,087	31.0	35	.....	.....	.74	8.65	.....	.....
Diseases of the ear	887	23.9	37	.....	3	.60	9.15	.....	.74
Dietic diseases	529	3.1	169	.....	.....	.36	41.78	.....	.....
Typho-malarial fever	406	58.0	7	3	.....	.27	1.73	.74	.....
Zoögenous diseases	346	8.3	42	.....	.....	.24	10.38	.....	.....
Septic diseases	258	39.9	7	.....	1	.18	1.73	.....	.25
Diseases of the nose	94	7.2	13	.....	1	.06	3.21	.....	.25
Parasitic diseases	30	3.0	10	.....	.....	.02	2.47	.....	.....
Developmental diseases .....	.....	.....	.....	.....	4	.....	.....	.....	.99
Unclassified diseases	407	8.0	51	.....	1	.28	12.61	.....	.25
Total	66,717	12.3	5,435	22	104	45.19	1,343.63	5.45	25.71

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 1.48 per 1,000 of mean strength in the northern group, .98 in the middle, and 3.09 in the southern; for *pneumonia* it was 4.45 in the northern, 4.39 in the middle, and 0 in the southern; for *pleuritis* it was .74 in the northern, 1.95 in the middle, and 7.73 in the southern; for *bronchitis* it was 80.06 in the northern, 68.81 in the middle, and 23.18 in the southern; for *catarrhs and common colds* it was 33.36 in the northern, 35.14 in the middle, and 57.19 in the southern; for *acute articular rheumatism* it was 1.48 in the northern, 1.46 in the middle, and 6.18 in the southern; for *articular rheumatism (subacute and chronic)* it was 11.12 in the northern, 51.24 in the middle, and 40.19 in the southern; for *muscular rheumatism* it was 71.91 in the northern, 35.63 in the middle, and 23.18 in the southern; for *cholera morbus* it was 4.45 in the northern, 9.76 in the middle, and 0 in the southern; for *diarrhæa (acute and chronic)* it was 90.43 in the northern, 184.48 in the middle, and 139.10 in the southern; for *dysentery (acute and chronic)* it was 1.48 in the northern, 15.13 in the middle, and 3.09 in the southern; for *paroxysmal (malarial) fevers* it was 31.88 in the northern, 203.51 in the middle, and 259.66 in the southern; for *typhoid fever* it was 0 in the northern, 6.34 in the middle, and 4.64 in the southern group.

Of the class of *specific febrile and acute infectious diseases*, 59 admissions to sick report, or a rate of 14.59 per 1,000 of mean strength, were reported in the region during the year; of this number the white troops furnished 50 admissions, or a rate of 13.43 per 1,000 of mean strength, and the colored 9, or 28.04 per 1,000. The admission rate for these diseases was 2.22 for the northern group, 23.91 for the middle, and 10.82 for the southern, per 1,000 of mean strength.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Prairies during the year comprised the months of January and February in the northern group; July, August, September, and October in the middle group; and October, November, and December in the southern group. During the period of greatest sickness in the northern group the number constantly non-effective averaged 43.08 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, injuries (principally contusions and sprains), rheumatism, venereal diseases, diseases of the eye (principally conjunctivitis), bronchitis, and pneumonia. In the middle group, during the period of greatest sickness, the daily non-effective rate was 52.12 per 1,000 of mean strength, and the principal causes were malarial fevers, venereal diseases (particularly syphilis), injuries (principally contusions and sprains), and diarrhoeal diseases. In the southern group, during this period, the daily average of non-effectiveness was 66.78 per 1,000 of mean strength, and the prevailing causes were venereal diseases, injuries, malarial fever, rheumatism, and pulmonary phthisis.

August showed a greater number of admissions to sick report than any other month of the year in the northern group, July in the middle, and October in the southern, the rates per 1,000 of mean strength being 111.02, 157.39, and 174.33, respectively; but the number constantly non-effective on account of sickness was greatest in February in the northern group, in August in the middle, and October in the southern, the rates per 1,000 of mean strength being 43.14, 53.60, and 72.39.

The period of *least sickness* appears to have comprised the months of October and November in the northern group, and February and March in both the middle and southern groups, the constant non-effective rates being 33.47, 44.67, and 37.79.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are excluded, it is found that, while the period of greatest sickness is practically the same in each of the three groups, the constant non-effective rate is greatly diminished.

In the northern group, excluding the cases above mentioned, the prevailing diseases during the period of greatest sickness were rheumatism (including muscular), diseases of the eye (principally conjunctivitis), bronchitis, and pneumonia; and the constant non-effective rate was 30.75 per 1,000 of mean strength, that for the year being 26.12. In the middle group the prevailing causes of sickness were malarial fever, diarrhœa, rheumatism, and typhoid fever; the constant non-effective rate was 36.05 per 1,000 of mean strength, that for the whole year being 32.05. In the southern group the prevailing causes of sickness were malarial fevers, rheumatism, pulmonary phthisis, and typhoid fever; and the constant non-effective rate was 42.04 per 1,000 of mean strength, that for the year being 30.29.

Excluding injuries, venereal diseases, and alcoholism, the period of least sickness comprised the months of June and July in the northern group, November and December in the middle, and April and May in the southern group, the constant non-effective rates of the three groups being, respectively, 20.76, 28.09, and 21.38 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—In the northern group *Fort Pembina* furnished the highest admission rate for the year, 1,988 per 1,000 of mean strength; *Fort Randall* the highest constant non-effective rate, 50.27 per 1,000, and *Fort Sisseton* the highest death rate, 20.40 per 1,000.

In the middle group *Fort Omaha* furnished the highest admission rate, 1,858.88 per 1,000; also the highest constant non-effective rate, 72.42 per 1,000; *Fort Gibson* the highest death rate, 22.99 per 1,000 of mean strength.

In the southern group *Fort Concho* gave the highest admission and constant non-effective rates per 1,000 of mean strength, 1,906.98 and 57.33, respectively; the *Post of San Antonio* the highest death rate, 5.34 per 1,000.

COLORED TROOPS.—The mean strength of colored troops serving in the region of the prairies was 321; 87 in the northern group, 233 in the middle, and only 1 in the southern.

In the northern group the admission rate of the colored troops, counting all cases of disease and injury, was 1,080.46 per 1,000 of mean strength, as against 1,127.58 per 1,000 for the white; their non-effective rate was also lower, being 25.72, as against 39.19 for the white troops.

In the middle group the colored troops gave admission and non-effective rates higher than those of the white, those for the former being 1,673.82 and 58.61 per 1,000 of mean strength, respectively, and for the latter 1,387.11 and 47.02.

Excluding from the calculation injuries, venereal diseases, and alcoholism, it appears that the non-effective rate of the colored troops in the northern group was but 15.02, and that of the white 26.89 per 1,000 of the mean strength; in the middle group it was 36.55 for the colored, and 31.47 for the white troops.

In the northern group the diseases, in the rates of occurrence of which the greatest disproportion between the two races is observed, are pneumonia, pharyngitis and sore throat, and catarrhs and common colds, the colored soldier showing for these causes admission rates for the year of 22.99, 34.48, and 68.97 per 1,000 of mean strength respectively, while those of the white soldier are only 3.17, 13.47, and 30.90.

In the middle group the disproportion in the rates of occurrence of pharyngitis and sore throat, and catarrhs and common colds, which was so marked in the northern group, is reversed, the rates of the colored troops being only 12.88 and 0 respectively, while they were 34.14 and 39.65 for the white. Malarial fevers were the principal causes of admission among the colored troops, their rate for this class of diseases being 424.89, considerably in excess of that of the white troops, which was 175.11 per 1,000 of mean strength.

INDIAN SCOUTS.—The Indian scouts in this region gave a mean strength of only 7 for the year. No admissions to sick report, deaths, or discharges occurred among them during the year.

CIVILIANS WITH COMMAND.—With a mean strength of 4,045 officers and enlisted men serving in the region, there was constantly present during the year an average of 2,837 civilians. Of this number 874 were adult males, 938 adult females, and 1,025 children. The admissions to sick report numbered for the adult males 398, and the deaths 9; for the adult females 804, and the deaths 3; for the children 736, and the deaths 18; or an aggregate of 1,938 admissions and 30 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of July in the northern group of posts, January in the middle group, and November in the southern group, the prevailing diseases being those of the digestive system in the northern group, diseases of the respiratory system and catarrhal diseases in the middle group, and malarial and catarrhal diseases in the southern group.

The *least sickness* was reported during the month of May in the northern group, and February in the middle and southern groups.

REGION OF THE GREAT PLAINS.

There are 28 military stations in this region, all of which, except those in the vicinity of the Rio Grande, have an elevation of over 2,000 feet. For purposes of comparison the posts have been divided into three groups, the northern, middle, and southern.

The following table shows the stations in the region, with mean strength of command, rates of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time.)	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury	Total.					
Northern group:									
Fort Assiniboine, Mont.....	396	370	77	447	1,128.79	14.61	36.89	7	1
Camp Poplar River, Mont.....	97	138	45	183	1,886.60	4.44	45.81	3	2
Fort Shaw, Mont..	201	112	44	156	776.11	6.01	29.92	2	2
Fort Maginnis, Mont.	111	71	41	112	1,009.01	3.43	30.93	3	3
Fort Keogh, Mont..	364	305	126	431	1,184.07	10.82	29.71	10	1
Fort Custer, Mont..	363	264	74	338	931.13	17.36	47.81	17	1
Fort Meade, Dak ..	462	695	199	894	1,935.06	24.65	53.36	23	1
Fort McKinney, Wyo.....	171	227	59	286	1,672.51	8.79	51.40	6	2
Field.....	96	41	15	56	583.33	1.08	11.22	1	.....
Total.....	2,261	2,223	680	2,903	1,283.04	91.19	40.33	72	16

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Middle group:									
Fort Niobrara, Nebr	428	249	104	353	824.78	11.84	26.50	21	.....
Fort Robinson, Nebr	325	283	134	417	1,283.08	15.30	47.07	14	4
Fort Laramie, Wyo	187	136	29	165	882.35	6.10	32.60	5	2
Fort D. A. Russell, Wyo	418	333	67	400	956.94	17.23	41.21	8	4
Fort Sidney, Nebr...	194	317	46	363	1,871.13	8.73	44.09	1	.....
Fort Hays, Kans...	147	110	12	122	829.93	6.33	43.09	7	3
Fort Lyon, Colo...	218	254	58	312	1,431.19	7.30	53.50	1	1
Fort Supply, Ind. T.	265	201	77	278	1,048.06	9.66	36.46	2	1
Fort Reno, Ind. T...	301	377	107	484	1,607.97	14.09	46.81	7	.....
Fort Elliott, Tex...	191	125	44	169	884.82	5.68	29.73	2	3
Field.....	33	16	5	21	636.37	.64	16.36	1	1
Total.....	2,707	2,401	683	3,084	1,139.27	102.80	37.79	69	19
Southern group:									
Fort Stanton, N. Mex	204	75	38	113	553.92	8.06	39.50	4	2
Fort Bliss, Tex...	115	136	30	166	1,443.48	5.38	46.82	2	2
Fort Hancock, Tex.	63	59	18	77	1,222.22	2.08	33.00	1	2
Fort Davis, Tex...	279	248	54	302	1,082.44	9.57	34.30	4	3
Camp Pena Colorado, Tex.	50	48	21	69	1,169.40	2.90	49.08	2	.....
Camp Del Rio, Tex.	59	61	27	88	1,491.53	2.48	42.12	1	1
Fort Clark, Tex...	600	694	146	840	1,400.00	21.87	36.45	17	5
Fort McIntosh, Tex	151	216	43	269	1,715.23	8.82	58.38	1	3
Fort Ringgold, Tex.	133	111	27	138	1,037.59	6.70	50.38	5	2
Camp at Eagle Pass, Tex.....	56	34	12	46	821.43	2.10	37.57	.....	.....
Field.....	20	24	3	27	1,350.00	.30	15.05	.....	.....
Total.....	1,739	1,706	419	2,125	1,221.97	70.26	40.40	37	20
Total for the region.	6,707	6,330	1,782	8,112	1,209.48	263.75	39.33	178	49

The force serving in this region during the year 1887 consisted of portions of 8 regiments of cavalry and 14 regiments of infantry, and a detachment of ordnance. There were also 3 companies of Indian scouts, but they are not included in computing the mean strength of the command, or any of the ratios given below.

The mean strength, including officers, was 6,707 men, of whom 5,859 were white, and 848 colored. The total number of admissions to sick report was 8,112; of this number 3,848 were treated in quarters, 4,160 in hospital, and 104 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 87, in hospital 175, in the field 2, total 264; from disease 197, injury 67. The discharges for disability numbered, from quarters 46, from hospital 130, from the field 1, total 177; for disease 156, injury 21. The deaths numbered, in quarters 16, in hospital 32, in the field 2, total 50; from disease 33, injury 17.

The admission rate per 1,000 of mean strength was 1,209 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 620. The ratio of deaths per 1,000 of mean strength was 7.45, in the proportion of 4.77 in hospital, 2.38 in quarters, and .30 in the field; 4.92 from disease, and 2.53 from injury. The ratio of discharges for disability was 26.39, in the proportion of 6.86 from quarters, 19.38 from hospital, .15 from the field; 23.26 for disease, and 3.13 for injury. The ratio of constant non-effectiveness on account of sickness was 39.33, in the proportion of 26.08 in hospital, 12.96 in quarters, and .29 in the field; 29.29 from disease, and 10.04 from injury.

The average duration of each case of sickness was, for those treated in quarters 8 days, in hospital 15 days, in the field 7 days, for all cases treated 12 days; for disease 11 days, injury 14 days; and the total loss of time on account of sickness averaged 14 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 10 days, for those who were discharged for disability 73 days, and for those who died 26 days. The ratio of recoveries per 1,000 of all admissions to sick report was 958, of discharges for disability 22, and of deaths 6.

The admission rate per 1,000 of mean strength was highest, 1,284, in the northern group of posts; it was lowest, 1,139, in the middle group; in the southern group it was 1,222. While the admission rate was highest in the northern group of posts, the death-rate of this group was decidedly the lowest of the region, being only 4.87 per 1,000 of mean strength, against 11.50 for the southern group, and 7.02 for the middle. The death-rate per 1,000 of admissions to sick report was only 3.79 in the northern, as against 9.41 in the southern, and 6.16 in the middle group. The death rates for the previous year were 7, 10, and 8 per 1,000 of mean strength, respectively, for the northern, southern, and middle groups.

The constant non-effective rate was lowest in the middle group, being 38 per 1,000 of mean strength, as against 36 per 1,000 for the previous year; it was 40 per 1,000 in the northern and southern groups, against 44 and 49, respectively, for the previous year.

The ratio of discharges for disability per 1,000 of mean strength was highest in the northern group, being 31.40, against 21.23 in the southern, and 25.49 in the middle group, while the average duration of treatment prior to discharge was longest in the southern group, being 82 days, against 62 in the middle, and 78 in the northern group. The average duration of treatment for patients who recovered and returned to duty was the same in each group, 10 days; that of patients who died was longest in the northern group, 31 days, and shortest in the southern, 21 days; it was 28 days in the middle group.

The following table shows for each group of posts in the region of the Great Plains, and for the whole region, the number and classified causes of all admissions to sick report, deaths, and discharges occurring during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

NORTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Injuries	9,853	14.5	680	4	11	11.94	300.75	1.77	4.87
Diseases of the respiratory system	3,798	10.6	359	4	13	4.60	158.78	1.77	5.75
Venereal diseases	3,763	25.1	150		6	4.56	66.34		2.65
Diseases of the digestive system	2,424	6.0	403		4	2.94	178.24		1.77
Constitutional diseases	2,259	23.1	98	1	14	2.74	43.34	.44	6.19
Diseases of the integumentary system	2,187	11.2	196			2.65	86.69		
Diseases of the locomotor system	1,837	10.1	182		4	2.23	80.49		1.77
Diseases of the nervous system	1,383	7.0	197		3	1.68	87.13		1.33
Malarial diseases	948	14.1	67			1.15	29.63		
Diseases of the genito-urinary system (non-venereal)	862	23.3	37		6	1.04	16.36		2.65
Diseases of the lymphatic system	785	35.7	22			.95	9.73		
Diarrhoeal diseases	750	3.3	328		2	.91	100.84		.88
Diseases of the eye	705	10.8	65		2	.85	28.75		.88
Diseases of the circulatory system	409	15.7	26		2	.50	11.50		.88
Dietic diseases	376	3.8	99			.46	43.79		
Specific febrile and acute infectious diseases	220	14.7	15	1		.27	6.63	.44	
Diseases of the ear	180	7.2	25		2	.22	11.06		.83
Septic diseases	176	44.0	4	1		.21	1.77	.44	
Zoögenous diseases	99	8.2	12			.12	5.31		
Developmental diseases	44	44.0	1		2	.05	.44		.88
Diseases of the nose	19	6.3	3			.02	1.33		
Parasitic diseases	4	4.0	1			.01	.44		
Unclassified diseases	203	6.2	33			.25	14.59		
Total	33,284	11.5	2,903	11	71	40.33	1,283.94	4.87	31.40

MIDDLE GROUP.

Injuries	9,589	14.0	683	5	8	9.70	252.31	1.85	2.96
Diseases of the respiratory system	3,303	10.3	321	3	9	8.34	118.58	1.11	3.22
Constitutional diseases	3,282	22.5	146	1	10	3.32	53.93	.37	3.69
Diseases of the digestive system	2,551	6.6	384	2	4	2.58	141.85	.74	1.48
Specific febrile and acute infectious diseases	2,507	22.6	111	5		2.54	41.00	1.85	
Venereal diseases	2,276	10.7	110		5	2.30	40.64		1.85
Malarial diseases	2,220	12.3	181			2.25	66.86		
Diarrhoeal diseases	1,972	5.8	341	1	1	2.00	125.97	.37	.37
Diseases of the nervous system	1,868	8.9	211		11	1.89	77.95		4.06
Diseases of the integumentary system	1,654	8.7	190		1	1.07	70.19		.37
Diseases of the eye	1,474	23.4	63		3	1.49	23.27		1.11
Diseases of the genito-urinary system (non-venereal)	1,294	38.1	34		4	1.31	12.56		1.48
Diseases of the locomotor system	1,050	10.6	99		7	1.06	36.57		2.59
Diseases of the circulatory system	616	34.2	18	1	5	.62	6.65	.37	1.85
Zoögenous diseases	372	12.4	30			.38	11.08		
Dietic diseases	334	3.2	104	1		.34	38.42	.37	
Diseases of the lymphatic system	241	24.1	10			.24	3.69		
Parasitic diseases	85	10.6	8			.09	2.96		
Diseases of the ear	69	6.9	10			.07	3.69		
Typho-malarial fever	60	60.0	1			.06	.37		
Septic diseases	36	12.0	3			.04	1.11		
Developmental diseases	23	23.0	1		1	.02	.37		.37
Unclassified diseases	464	18.6	25			.47	9.23		
Total	37,340	12.1	3,084	19	69	37.79	1,139.27	7.02	25.49

SOUTHERN GROUP.

Classified causes.	Time lost—		Numbers of—			Ratio per 1000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'tha.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'tha.	Discharges.
Injuries	5,131	12.2	419	8	2	8.08	240.94	4.60	1.15
Veneral diseases	4,121	21.7	190	.....	6	6.49	109.26	.....	3.45
Malarial diseases	2,438	15.6	156	2	.....	5.84	89.71	1.15	.....
Diseases of the digestive system	1,934	7.2	269	3	1	3.05	154.60	1.73	.58
Diarrhoeal diseases	1,752	7.5	234	.....	2	2.76	134.56	.....	1.15
Constitutional diseases	1,583	32.3	49	.....	2	2.49	28.18	.....	1.15
Diseases of the integumentary system	1,488	9.4	158	.....	.....	2.34	90.86	.....	.....
Diseases of the locomotor system	1,272	11.1	115	.....	3	2.00	66.13	.....	1.73
Diseases of the respiratory system	1,128	12.4	91	2	5	1.78	52.33	1.15	2.88
Diseases of the nervous system	1,007	13.1	77	2	5	1.59	44.28	1.15	2.88
Diseases of the genitourinary system (non-venereal)	811	23.2	35	.....	1	1.28	20.13	.....	.58
Specific febrile and acute infectious diseases	642	30.6	21	.....	.....	1.01	12.08	.....	.....
Dietic diseases	501	4.0	126	1	1	.79	72.45	.58	.58
Diseases of the circulatory system	374	37.4	10	2	4	.59	5.75	1.15	2.30
Diseases of the lymphatic system	371	28.5	13	.....	.....	.58	7.48	.....	.....
Diseases of the eye	364	7.0	52	.....	2	.57	29.90	.....	1.15
Zoögenous diseases	164	7.1	23	.....	.....	.26	13.23	.....	.....
Diseases of the ear	128	9.1	14	.....	2	.20	8.05	.....	1.15
Parasitic diseases	108	8.4	17	.....	.....	.17	9.78	.....	.....
Developmental diseases	62	62.0	1	.....	1	.10	.58	.....	.58
Diseases of the nose	43	21.5	2	.....	.....	.07	1.15	.....	.....
Septic diseases	16	8.0	2	.....	.....	.03	1.15	.....	.....
Typho-malarial fever	*3	.....	.....	.....	.....	.01	.....	.....	.....
Unclassified diseases	205	2.1	51	.....	.....	.32	29.32	.....	.....
Total	25,646	12.1	2,125	20	37	40.40	1,221.97	11.50	21.28

* Case remaining from last year.

TOTAL FOR THE REGION.

Injuries	24,573	13.8	1,782	17	21	10.04	265.69	2.53	3.13
Veneral diseases	10,100	22.6	450	.....	17	4.15	67.09	.....	2.53
Diseases of the respiratory system	8,229	10.7	771	9	27	3.36	114.95	1.34	4.03
Constitutional diseases	7,124	24.3	293	2	26	2.91	43.69	.30	3.88
Diseases of the digestive system	6,909	6.5	1,056	5	9	2.82	157.45	.75	1.34
Malarial fevers	5,606	13.9	404	2	.....	2.29	60.24	.30	.....
Diseases of the integumentary system	5,329	9.8	544	.....	1	2.18	81.11	.....	.15
Diarrhoeal diseases	4,474	5.6	803	1	5	1.83	119.73	.15	.75
Diseases of the nervous system	4,258	8.8	485	2	19	1.74	72.31	.30	2.83
Diseases of the locomotor system	4,159	10.5	396	.....	14	1.70	59.04	.....	2.09
Specific febrile and acute infectious diseases	3,369	22.9	147	6	.....	1.38	21.92	.89	.....
Diseases of the genitourinary system (non-venereal)	2,967	28.0	106	.....	11	1.21	15.80	.....	1.64
Diseases of the eye	2,543	14.1	180	.....	7	1.04	26.84	.....	1.04
Diseases of the circulatory system	1,399	25.9	54	3	11	.57	8.05	.45	1.64
Diseases of the lymphatic system	1,397	31.0	45	.....	.....	.57	6.71	.....	.....
Dietic diseases	1,211	3.7	329	2	1	.50	49.05	.30	.15
Zoögenous diseases	635	9.8	65	.....	.....	.26	9.69	.....	.....
Diseases of the ear	377	7.7	49	.....	4	.15	7.31	.....	.60
Septic diseases	228	25.3	9	1	.....	.09	1.34	.15	.....
Parasitic diseases	197	7.6	26	.....	.....	.08	3.88	.....	.....
Developmental diseases	129	43.0	3	.....	4	.05	.45	.....	.60
Typho-malarial fever	63	63.0	1	.....	.....	.03	.15	.....	.....
Diseases of the nose	62	12.4	5	.....	.....	.03	.75	.....	.....
Unclassified diseases	872	8.0	109	.....	.....	.26	16.25	.....	.....
Total	96,270	11.9	8,112	50	177	39.33	1,209.48	7.45	26.39

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 5.31 per 1,000 of mean strength in the northern group, 2.59 in the middle, and 2.88 in the southern; for *pneumonia* it was 2.21 in the northern, 2.59 in the middle, and 1.73 in the southern; for *bronchitis* it was 85.36 in the northern, 86.07 in the middle, and 30.48 in the southern; for *catarrh and common colds* it was 58.38 in the northern, 19.58 in the middle, and 10.93 in the southern; for *acute articular rheumatism* it was 3.10 in the northern, 2.96 in the middle, and 6.90 in the southern; for *articular rheumatism (subacute and chronic)* it was 38.04 in the northern, 45.81 in the middle, and 16.10 in the southern; for *muscular rheumatism* it was 75.19 in the northern, 31.77 in the middle, and 57.50 in the southern; for *cholera morbus* it was 7.08 in the northern, 7.76 in the middle, and 4.03 in the southern; for *diarrhœa (acute and chronic)* it was 90.66 in the northern, 107.13 in the middle, and 110.40 in the southern; for *dysentery (acute and chronic)* it was 3.10 in the northern, 11.08 in the middle, and 20.13 in the southern; for *paroxysmal (malarial) fevers* it was 29.63 in the northern, 66.86 in the middle, and 89.71 in the southern; for *typhoid fever* it was .88 in the northern, 21.06 in the middle, and 5.18 in the southern.

Of the class of *specific febrile and acute infectious diseases*, 147 admissions to sick report, or a rate of 21.92 per 1,000 of mean strength, were reported in the region during the year; of this number the white troops furnished 115 admissions, or a rate of 19.63 per 1,000 of mean strength, and the colored 32, or 37.72 per 1,000. The admission rate for these diseases was 6.63 for the northern group, 41 for the middle, and 12.08 for the southern, per 1,000 of mean strength.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Great Plains during the year comprised the months of February and March in the northern group; January, February, March, and April in the middle group; and September, October, and November in the southern group. During the period of greatest sickness in the northern group the number constantly non-effective averaged 42.23 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, contusions and sprains, rheumatism, and venereal diseases. In the middle group, during the period of greatest sickness, the daily non-effective rate was 40.38 per 1,000 of mean strength, and the principal causes were rheumatism, contusions and sprains, and venereal diseases. In the southern group, during the period of greatest sickness, the daily average of non-effectiveness was 47.74 per 1,000 of mean strength, and the prevailing causes were venereal diseases, malarial fevers, and contusions and sprains.

September showed a greater number of admissions to sick report than any other month of the year in the northern group, July in the middle, and September in the southern, the rates per 1,000 of mean strength being 144.48, 116.08, and 120.88, respectively; but the number constantly non-effective on account of sickness was greatest in February in the northern group, in January in the middle group, and in October in the southern group, the rates per 1,000 of mean strength being 43.28, 41.68, and 49.68.

The greatest number of deaths occurred in November in the northern group, August in the middle, and November in the southern; they numbered, respectively, 5, 4, and 7.

The period of *least sickness* appears to have comprised the months of November and December in the northern and middle groups, and Jan-

uary, February, and March in the southern, the constant non-effective rates being 34.93, 34.73, and 32.61, respectively.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are excluded from the calculation, it is found that the period of greatest sickness comprised the same months, February and March in the northern group, and September and October in both the middle and southern groups. In the first group the prevailing diseases were rheumatism, bronchitis, and catarrh and common colds, and the constant non-effective rate was 27.46 per 1,000 of mean strength, that for the whole year being 23.41. In the second group the principal cause of sickness during the period mentioned was reported to be typhoid fever,* for which the constant non-effective rate was 8.61 per 1,000 of mean strength, or nearly 32 per cent. of the total non-effectiveness during the same period, which was 27.23 per 1,000 of mean strength, that for the year being 25.46. In the third group the prevailing causes of sickness were malarial fevers, abscesses and boils, diarrhoeal diseases, and typhoid fever, and the constant non-effective rate was 28.91 per 1,000 of mean strength, that for the year being 25.07.

Exclusive of injuries, venereal diseases, and alcoholism, the period of least sickness comprised the months of October, November, and December in the northern group, November and December in the middle, and January, February, and March in the southern, the constant non-effective rates being, respectively, 14.84, 22.68, and 20.55 per 1,000 of mean strength.

HEALTH OF INDIVIDUAL POSTS.—In the northern group *Fort Meade* furnished the highest admission rate for the year, 1,935 per 1,000 of mean strength, also the highest constant non-effective rate, 53.36 per 1,000; *Fort Maginnis* the highest death rate, 18.02 per 1,000.

In the middle group *Fort Sidney* reported the highest admission rate, 1,871 per 1,000, and *Fort Robinson* the highest constant non-effective rate, 47.07 per 1,000; *Fort Hays* the highest death rate, 20.41 per 1,000.

In the southern group *Fort McIntosh* gave the highest admission rate, 1,715 per 1,000, as well as the highest constant non-effective rate, 58.38 per 1,000; but the highest death rate, 31.75 per 1,000, occurred at *Fort Hancock*, *Fort McIntosh* furnishing the next highest, 19.87 per 1,000.

COLORÉD TROOPS.—The mean strength of colored troops serving in the region of the Great Plains was 848; 252 in the northern, and 596 in the middle group. There were no colored troops stationed in the southern group during the year.

In the middle group both the admission rate and the constant non-effective rate were lower for the colored than for the white troops, being, respectively, 1,102 and 27.60 for the former, and 1,150 and 40.67 for the latter, while in the northern group the reverse was the case, the colored troops furnishing an admission rate of 2,040, against 1,189 per 1,000 of mean strength for the white, and a constant non-effective rate of 51.60, against 38.92 per 1,000 for the white.

Excluding from the calculation injuries, venereal diseases, and alcoholism, the contrast between the two races is still more striking, the constant non-effective rate of the colored troops in the middle group being 14.19, or a little less than half that of the white troops, which was 28.64 per 1,000 of mean strength, while in the northern group the non-effective rate of the colored was much higher than that of the white

* See typhoid fever at Fort Laramie, Wyo. T., under special causes of admission to sick report for the whole Army.

troops, the rate of the former being 38.49, and that of the latter 21.52 per 1,000 of mean strength.

In the northern group, during the months of September, October, and November, the monthly admission rate of the colored troops, excluding the cases mentioned above, was nearly three times that of the white, the average being 161.69 per 1,000 of mean strength for the former, and 61.88 for the latter. In this group articular rheumatism (subacute and chronic) is the disease in the rates of occurrence of which the greatest disproportion between the two races is observed, the colored soldier showing an admission rate for the year of 158.73, or more than six times that of the white, which was 22.90; and for the months of April and May, the period of greatest sickness among the colored troops, their constant non effective rate was 18.71 per 1,000 of mean strength for this disease alone, while for the white troops it was only 1.24.

Diseases of the respiratory system gave an admission rate of 396.33 per 1,000 of mean strength for the colored, and 128.92 for the white soldier. Tonsillitis caused a rate of 107.14 for the colored, and 32.35 for the white.

In the middle group, excluding injuries, venereal diseases, and alcoholism, the period of greatest sickness among the colored troops covered the month of December, the constant non-effective rate being 24.95 per 1,000 of mean strength, while that of the white troops for the same month was 22.51 per 1,000. It is worthy of mention that, with this exception, the colored troops in this group furnished lower rates of constant non-effectiveness during all other months.

INDIAN SCOUTS.—The Indians in this region gave a mean strength of 102 for the year; 88 of this number were constantly in the middle group, 12 in the southern, and 2 in the northern group. Among the whole number there were 34 admissions to sick report for all causes—27 for disease and 7 for injuries. No deaths were reported.

CIVILIANS WITH COMMAND.—With a mean strength of 6,707 officers and enlisted men serving in the region, there was constantly present during the year an average 2,832 civilians. Of this number 585 were adult males, 1,059 adult females, and 1,188 children. The admissions to sick report numbered for the adult males 247, and the deaths 9; for the adult females 1,395, and the deaths 7; for the children 1,067, and the deaths 21; or an aggregate of 2,709 admissions and 37 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of April in the northern group, and August in the middle and southern groups; the prevailing diseases being catarrhs and rheumatism in the northern group, diseases of the digestive system and malarial diseases in the middle group, and diseases of the digestive and nervous systems in the southern group.

The *least sickness* was reported during the month of November in the northern and southern groups, and in June in the middle group.

REGION OF THE CORDILLERAS.

There are 35 military stations in this region, all of which, with the exception of a few in the extreme northern and southern portions, have an elevation of over 4,000 feet. For purposes of comparison they have been divided into three groups—the northern, middle, and southern.

The following table shows the stations in the region, with mean strength of command, rates of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Northern group:									
Fort Spokane, Wash....	247	192	56	248	1,004.05	13.09	53.01	8	3
Fort Sherman, Idaho....	252	190	70	260	1,031.75	9.35	37.12	11	2
Fort Missoula, Mont....	166	243	59	302	1,819.28	8.19	49.31	8	1
Fort Walla Walla, Wash	287	228	87	315	1,097.56	8.32	28.98	8	5
Helena, Mont.....	1	3	.....	3	3,000.00	.20	203.00	.....	.....
Boise Barracks, Idaho....	98	84	46	130	1,326.53	4.68	47.78	2	.....
Fort Washakie, Wyo....	124	120	20	140	1,129.03	7.81	63.02	2	1
Camp Sheridan, Wyo....	52	84	14	48	923.08	1.74	33.40	3	.....
In the field.....	17	.....	.....	.....	.....	.03	1.94	.....	.....
Total.....	1,244	1,094	352	1,446	1,162.37	53.42	42.94	42	12
Middle group:									
Fort Klamath, Oregon....	47	27	3	30	638.30	1.08	22.97	5	.....
Fort Bidwell, Cal.....	117	75	23	98	837.61	2.62	22.36	3	.....
Fort McDermitt, Nev....	40	26	6	32	800.00	.78	19.52	1	.....
Fort Bridger, Wyo.....	168	115	42	157	934.52	5.24	31.18	6	1
Fort Douglas, Utah.....	375	420	88	508	1,354.67	16.50	43.99	13	2
Fort Du Chesne, Utah....	223	167	57	224	1,004.48	6.67	20.92	14	2
Fort Crawford, Colo....	83	57	19	76	915.66	3.69	44.40	4	1
Fort Lewis, Colo.....	295	234	66	300	1,016.95	11.46	38.86	6	4
Fort Union, N. Mex.....	275	183	56	239	869.09	7.81	28.41	3	4
Fort Wingate, N. Mex....	325	370	93	463	1,424.62	9.92	30.51	13	.....
Fort Marcy, N. Mex.....	80	81	22	108	1,287.50	2.25	28.12	3	3
Camp Medicine Butte, Wyo.	5	3	1	4	800.00	.12	24.66	.....	.....
Camp Pilot Butte, Wyo....	87	82	16	98	1,126.44	4.65	53.41	3	1
Camp near Denver, Colo.	14	20	2	22	1,571.43	.36	26.03	.....	.....
In the field.....	21	24	6	30	1,428.57	.70	33.57	.....	.....
Total.....	2,155	1,884	500	2,384	1,106.26	73.85	34.27	74	16
Southern group:									
Fort Mojave, Ariz.....	49	41	7	48	979.59	1.32	26.89	2	.....
Whipple Barracks, Ariz	179	79	21	100	558.65	6.27	35.05	11	.....
Fort Verde, Ariz.....	52	47	17	64	1,230.76	2.33	44.79	4	.....
Fort Apache, Ariz.....	190	150	34	184	968.42	7.63	40.14	2	2
Fort McDowell, Ariz....	93	101	19	120	1,290.32	3.42	36.82	2	2
San Carlos, Ariz.....	109	124	21	145	1,330.27	4.45	40.84	.....	4
Fort Thomas, Ariz.....	154	226	41	267	1,733.77	1.15	74.54	2	2
Fort Bayard, N. Mex....	301	194	68	262	870.43	8.22	27.32	9	2
Fort Selden, N. Mex....	43	77	8	83	1,976.75	2.26	52.50	2	.....
Fort Grant, Ariz.....	199	247	92	339	1,703.52	15.95	80.15	3	4
Fort Bowie, Ariz.....	150	100	45	145	966.67	5.03	33.53	4	3
Fort Lowell, Ariz.....	143	206	46	252	1,762.24	8.87	62.04	7	2
Fort Huachuca, Ariz....	253	270	69	339	1,339.92	12.98	51.31	10	2
In the field.....	48	10	6	25	520.83	.88	18.27	.....	1
Total.....	1,963	1,881	494	2,375	1,209.88	91.09	46.40	58	24
Total for region.....	5,362	4,859	1,346	6,205	1,157.22	218.37	40.72	174	54

The force serving in this region during the year consisted of portions of 14 regiments of infantry and of 6 regiments of cavalry, together with 1 battery of artillery; there were also Indian scouts, but they are not included in computing the mean strength of the command, or any of the ratios given below.

The mean strength, including officers, was 5,362, of whom 4,654 were white and 708 colored. The total number of admissions to sick report was 6,205; of this number 3,351 were treated in quarters, 2,799 in hospital, and 55 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 75, in hospital 141, in the field 2, total 218; from disease 169, injury 49. The discharges for disability numbered, from quarters 55, from hospital 119, total 174; for disease

155, for injury 19. The deaths numbered, in quarters 23, in hospital 30, and in the field 1, total 54; from disease 37, injury 17.

The admission rate per 1,000 of mean strength was 1,157 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 522. The ratio of deaths per 1,000 of mean strength was 10.07, in the proportion of 5.59 in hospital, 4.29 in quarters, and .19 in the field; 6.90 from disease and 3.17 from injury. The ratio of discharges for disability was 32.45, in the proportion of 10.26 from quarters, and 22.19 from hospital; for disease 28.91, and for injury 3.54. The ratio of constant non-effectiveness on account of sickness was 40.72, in the proportion of 26.36 in hospital, 14.06 in quarters, and .30 in the field; 31.55 from disease, and 9.17 from injury.

The average duration of each case of sickness was, for those treated in quarters 8 days, in hospital 18 days, in the field 11 days, for all cases treated 13 days; for disease and injury, each 13 days. The total loss of time on account of sickness averaged 15 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 11 days, for those who were discharged for disability 71 days, and for those who died 20 days. The ratio for recoveries per 1,000 of all admissions to sick report was 952, of discharges for disability 28, and of deaths 9.

The admission rate per 1,000 of mean strength was highest, 1,210, in the southern group of posts; it was lowest, 1,106, in the middle group; in the northern group it was 1,162.

The death-rate was also highest in the southern group, being 12.23 per 1,000 of mean strength, and lowest in the middle, 8.35 per 1,000; for the northern it was 9.65. The death-rate per 1,000 of admissions to sick report was, for the northern group 8.30, for the middle 7.55, and for the southern 10.10. The death-rate for the previous year were 4, 7, and 13 per 1,000 of mean strength, respectively, for the northern, middle, and southern groups.

The constant non-effective rate was lowest in the middle group, being 34.27 per 1,000 of mean strength, and highest in the southern, 46.40; it was 42.94 per 1,000 in the northern group. For the previous year it was 32 in the northern group, and 36 per 1,000 in both the middle and southern.

The ratio of discharges for disability per 1,000 of mean strength was highest in the middle group, being 34.34, as against 33.77 in the northern and 29.55 in the southern; while the average duration of treatment prior to discharge was longest in northern group, being 90 days, against 54 in the middle, and 81 in the southern group. The average duration of treatment for patients who recovered and returned to duty was longest, 12 days, in the southern group, and shortest, 9 days, in the middle; it was 11 days in the northern; that of patients who died was longest in the northern group, 31 days, and shortest in the southern group, 12 days; it was 23 days in the middle group.

The following table shows for each group of posts in the region of the Cordilleras, and for the whole region, the number and classified causes of all admissions to sick report, deaths, and discharges occurring during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

NORTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	5,010	14.2	352	7	4	11.03	282.96	5.03	3.23
Diseases of the respiratory system	2,447	14.7	167	.....	6	5.39	134.24	.....	4.83
Veneral diseases	1,794	28.5	63	.....	3	3.95	50.64	.....	2.41
Constitutional diseases	1,777	21.4	83	1	6	3.91	66.72	.80	4.83
Diseases of the digestive system	1,501	8.9	169	.....	4	3.31	135.85	.....	3.23
Diseases of the integumentary system	1,058	13.4	79	.....	.....	2.33	63.50	.....	.....
Diseases of the genito-urinary system (non-venereal)	1,047	41.9	25	.....	4	2.31	20.10	.....	3.23
Diseases of the nervous system	1,027	13.7	75	1	3	2.26	60.29	.80	2.41
Diseases of the locomotor system	806	12.9	67	.....	3	1.01	53.86	.....	2.41
Diarrhoeal diseases	636	4.0	158	.....	1	1.40	127.01	.....	.80
Malarial diseases	526	7.9	67	1	.....	1.16	53.86	.80	.....
Diseases of the ear	378	47.2	8	.....	1	.83	6.43	.....	.80
Diseases of the circulatory system	325	29.5	11	2	4	.72	8.84	1.61	3.23
Diseases of the eye	269	15.8	17	.....	2	.59	13.67	.....	1.61
Dietic diseases	249	4.0	62	.....	1	.55	49.84	.....	.80
Specific febrile and acute infectious diseases	196	24.5	8	.....	.....	.43	6.43	.....	.....
Diseases of the lymphatic system	118	39.3	3	.....	.....	.26	2.41	.....	.....
Zoögenous diseases	64	7.1	9	.....	.....	.14	7.23	.....	.....
Diseases of the nose	41	8.2	5	.....	.....	.09	4.02	.....	.....
Septic diseases	9	4.5	2	.....	.....	.02	1.61	.....	.....
Unclassified diseases	160	10.0	16	.....	.....	.35	12.86	.....	.....
Total	19,498	13.5	1,446	12	42	42.94	1,162.38	9.65	33.76

MIDDLE GROUP.

Injuries	6,192	12.4	500	3	6	7.87	232.02	1.39	2.78
Diseases of the digestive system	2,630	8.0	327	2	4	3.34	151.74	.93	1.86
Diseases of the respiratory system	2,568	14.4	178	4	9	3.26	82.60	1.86	4.18
Diseases of the nervous system	2,239	10.9	206	2	11	2.85	95.59	.93	5.10
Veneral diseases	2,150	24.5	88	.....	13	2.74	40.84	.....	6.03
Constitutional diseases	1,682	17.2	98	1	8	2.14	45.46	.46	3.71
Diseases of the integumentary system	1,230	10.4	118	.....	.....	1.56	54.76	.....	.....
Diseases of the eye	1,174	16.5	71	.....	6	1.49	32.95	.....	2.78
Specific febrile and acute infectious diseases	1,135	14.9	76	.....	.....	1.41	35.27	.....	.....
Diseases of the locomotor system	1,109	11.9	93	.....	8	1.41	43.16	.....	3.71
Malarial diseases	672	3.2	213	.....	1	.85	98.84	.....	.46
Diseases of the genito-urinary system (non-venereal)	671	21.0	28	.....	3	.85	12.09	.....	1.39
Diarrhoeal diseases	645	5.4	119	.....	.....	.82	55.22	.....	.....
Dietic diseases	480	4.3	112	1	.....	.61	51.97	.46	.....
Diseases of the circulatory system	370	23.1	16	3	1	.47	7.42	1.39	.46
Diseases of the nose	225	37.5	6	.....	2	.29	2.78	.....	.03
Septic diseases	180	15.0	12	1	.....	.23	5.57	.46	.....
Diseases of the ear	138	23.0	6	.....	1	.18	2.78	.....	.46
Diseases of the lymphatic system	123	13.7	0	.....	.....	.16	4.18	.....	.....
Zoögenous diseases	96	0.6	10	.....	.....	.12	4.61	.....	.....
Typho-malarial fever	96	96.0	1	.....	.....	.12	.46	.....	.....
Developmental diseases	50	50.0	1	.....	1	.06	.46	.....	.46
Parasitic diseases	4	2.0	2	.....	.....	.01	.93	.....	.....
Unclassified diseases	1,092	11.6	91	1	.....	1.39	43.62	.46	.....
Total	26,957	11.3	2,384	18	74	31.27	1,106.26	8.35	34.34

SOUTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratios per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	6,748	13.7	494	7	9	9.42	251.68	3.57	4.58
Veneral diseases	4,361	25.1	174	.....	5	6.09	88.64	.....	2.55
Diseases of the digestive system	2,973	9.6	308	1	4	4.15	156.90	.51	2.04
Malarial diseases	2,780	14.0	199	.....	1	3.88	101.37	.....	.51
Constitutional diseases	2,485	21.8	114	.....	3	8.47	58.07	.....	1.53
Diarrhoeal diseases	2,150	7.0	306	4	1	3.00	155.88	2.04	.51
Diseases of the respiratory system	1,806	11.1	163	6	4	2.52	83.04	3.06	2.04
Diseases of the nervous system	1,580	11.3	140	1	10	2.20	71.32	.51	5.09
Diseases of the integumentary system	1,533	14.6	105	.....	1	2.14	53.49	.....	.51
Specific febrile and acute infectious diseases	1,139	47.5	24	2	.....	1.59	12.23	1.02	.....
Diseases of the locomotor system	1,082	12.9	84	.....	4	1.51	42.79	.....	2.04
Diseases of the genito-urinary system (non-venereal)	1,044	24.3	43	1	4	1.46	21.91	.51	2.04
Diseases of the eye	935	21.2	44	.....	4	1.30	22.41	.....	2.04
Diseases of the lymphatic system	830	39.5	21	.....	1	1.16	10.70	.....	.51
Diseases of the circulatory system	491	35.1	14	2	3	.68	7.13	1.02	1.53
Dietic diseases	344	5.0	69	.....	2	.48	35.19	.....	1.02
Zoögenous diseases	217	5.7	38	.....	.....	.30	19.36	.....	.....
Typho-malarial fever	175	43.7	4	.....	.....	.24	2.04	.....	.....
Diseases of the ear	161	18.1	9	.....	1	.23	4.58	.....	.51
Diseases of the nose	110	18.3	6	.....	1	.15	3.66	.....	.51
Developmental diseases	37	37.0	1	.....	.....	.05	.51	.....	.....
Parasitic diseases	23	7.7	3	.....	.....	.03	1.53	.....	.....
Septic diseases	3	3.0	1	.....	.....	.01	.51	.....	.....
Unclassified diseases	240	21.8	11	.....	.....	.34	5.61	.....	.....
Total	33,219	11.0	2,375	24	58	46.40	1,209.88	12.22	29.55

TOTAL FOR THE REGION.

Injuries	17,050	13.3	1,346	17	19	9.17	251.03	3.17	3.54
Veneral diseases	8,311	25.6	325	.....	21	4.25	60.61	.....	3.02
Diseases of the digestive system	7,104	8.8	604	3	12	3.63	149.91	.56	2.24
Diseases of the respiratory system	6,821	13.4	508	10	19	3.49	91.74	1.86	3.54
Constitutional diseases	5,941	20.1	295	2	17	3.01	55.02	.37	3.17
Diseases of the nervous system	4,816	11.5	421	4	24	2.43	78.52	.75	4.48
Malarial diseases	3,951	10.3	385	1	1	2.02	71.80	.19	.19
Diseases of the integumentary system	3,821	12.7	302	.....	1	1.95	56.32	.....	.19
Diarrhoeal diseases	3,458	5.1	677	4	3	1.77	123.23	.75	.56
Diseases of the locomotor system	3,657	12.5	244	.....	15	1.56	43.51	.....	2.80
Diseases of the genito-urinary system (non-venereal)	2,762	28.8	96	1	11	1.41	17.00	.19	2.05
Specific febrile and acute infectious diseases	2,470	22.9	108	2	.....	1.26	20.14	.37	.....
Diseases of the eye	2,378	18.0	132	.....	12	1.22	24.02	.....	2.24
Diseases of the circulatory system	1,186	26.5	41	7	8	.61	7.65	1.31	1.49
Dietic diseases	1,073	4.4	243	1	3	.55	43.32	.10	.56
Diseases of the lymphatic system	1,071	32.5	32	.....	1	.53	6.15	.....	.19
Diseases of the ear	679	29.5	23	.....	3	.35	4.29	.....	.56
Zoögenous diseases	377	6.6	57	.....	.....	.19	10.63	.....	.....
Diseases of the nose	376	22.1	17	.....	3	.19	3.17	.....	.53
Typho-malarial fever	271	54.2	5	.....	.....	.14	.83	.....	.....
Septic diseases	192	12.8	15	1	.....	.10	2.89	.19	.....
Developmental diseases	87	43.5	2	.....	1	.04	.37	.....	.19
Parasitic diseases	27	5.4	5	.....	.....	.01	.63	.....	.....
Unclassified diseases	1,492	12.3	121	1	.....	.76	22.66	.19	.....
Total	79,704	12.08	6,205	54	174	40.72	1,157.22	10.67	32.45

SPECIAL DISEASES.—For *pulmonary phthisis* the admission rate was 5.63 per 1,000 of mean strength in the northern group, 3.25 in the middle, and 5.09 in the southern; for *pneumonia* it was 1.61 in the northern, 5.10 in the middle, and 3.57 in the southern; for *pleuritis* it was 1.61 in the northern, 1.86 in the middle, and 2.55 in the southern; for *bronchitis* it was 91.64 in the northern, 45.94 in the middle, and 48.90 in the southern; for *catarrh and common colds* it was 29.74 in the northern, 23.67 in the middle, and 18.34 in the southern; for *acute articular rheumatism* it was 4.02 in the northern, 2.78 in the middle, and 9.17 in the southern; for *articular rheumatism (subacute and chronic)* it was 59.49 in the northern, 39.44 in the middle, and 45.85 in the southern; for *muscular rheumatism* it was 47.43 in the northern, 37.59 in the middle, and 32.60 in the southern; for *cholera morbus* it was 5.63 in the northern, 9.74 in the middle, and 6.11 in the southern; for *diarrhœa (acute and chronic)* it was 117.36 in the northern, 85.38 in the middle, and 130.92 in the southern; for *dysentery (acute and chronic)* it was 4.02 in the northern, 3.71 in the middle, and 18.85 in the southern; for *paroxysmal (malarial) fevers* it was 53.86 in the northern, 55.22 in the middle, and 101.37 in the southern; for *typhoid fever* it was 3.22 in the northern, 8.82 in the middle, and 9.68 in the southern group.

Of the class of *specific febrile and acute infectious diseases*, 108 admissions to sick report, or a rate of 20.14 per 1,000 of mean strength, were reported in the region during the year; of this number the white troops furnished 95 admissions, or a rate of 20.41 per 1,000 of mean strength, and the colored 13, or 18.36 per 1,000. The admission rates for these diseases, by groups, were 6.43 for the northern, 35.27 for the middle, and 12.23 for the southern, per 1,000 of mean strength.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Cordilleras during the year comprised the months of March, April, and May in the northern group; September, October, and November in the middle group; and August, September, and October in the southern group. During the period of greatest sickness in the northern group the number constantly non-effective averaged 51.83 per 1,000 of mean strength, and the principal causes of this non-effectiveness were, in the order of their relative importance, contusions and sprains, bronchitis, and articular rheumatism (subacute and chronic). In the middle group, during the period of greatest sickness, the daily non-effective rate was 39.63 per 1,000 of mean strength, the principal causes being typhoid fever, simple continued fever, contusions and sprain, and venereal diseases. In the southern group the daily average of non-effectiveness was 56.14 per 1,000 of mean strength, and the prevailing causes were injuries, malarial diseases, and venereal diseases.

March showed a greater number of admissions to sick report than any other month of the year in the northern group, July in the middle, and August in the southern, the rates per 1,000 of mean strength being 124.43, 123.05, and 122.93, respectively; but the number constantly non-effective on account of sickness was greatest in April in the northern group, October in the middle, and September in the southern, the rates per 1,000 of mean strength being 52.41, 43.59, and 61.55, respectively.

The period of *least sickness* comprised the months of November and December in the northern group, June in the middle, and April and May in the southern, the constant non-effective rates being 34.12, 29.79, and 40.28, respectively.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are ex-

cluded from the calculation, it is found that the period of greatest sickness remains the same in all the groups. In the first group, excluding the cases mentioned above, the prevailing diseases were bronchitis, diseases of the digestive system, diseases of the nervous system, and pulmonary phthisis, and the constant non-effective rate was 32.49 per 1,000 of mean strength, that for the whole year being 27.46. In the second, the prevailing causes of sickness were typhoid fever, diseases of the digestive system, headache and neuralgia, and articular rheumatism, and the constant non-effective rate was 29.62 per 1,000 of mean strength, that for the whole year being 23.05. In the third group the prevailing causes of admission were diseases of the digestive system, diarrhoeal diseases, diseases of the nervous system, and remittent fever, and the constant non-effective rate was 41.10, that for the year being 30.42.

Excluding injuries, venereal diseases, and alcoholism, the period of least sickness remains the same in the northern group, but changes to March in the middle, and December in the southern, the rates being 22.85, 18.50, and 23.60, respectively.

HEALTH OF INDIVIDUAL POSTS.—In the northern group *Fort Missoula, Mont.*, furnished the highest admission rate for the year, 1,819.28 per 1,000 of mean strength; *Fort Washakie, Wyo.*, the highest constant non-effective rate, 63.02 per 1,000; *Fort Walla Walla, Wash.*, the highest death-rate, 17.42 per 1,000.

In the middle group *Fort Wingate, N. Mex.*, gave the highest admission rate for the year, 1,424.62 per 1,000 of mean strength; *Camp Pilot Butte, Wyo.*, the highest constant non-effective rate, 53.41 per 1,000; *Fort Marcy, N. Mex.*, the highest death-rate, 37.50 per 1,000.

In the southern group *Fort Selden, N. Mex.*, showed the highest admission rate, 1,976.75 per 1,000; *Fort Grant, Ariz.*, the highest constant non-effective rate, 80.15 per 1,000; *San Carlos, Ariz.*, the highest death-rate, 36.70 per 1,000.

As stated above, the highest death-rates for individual posts occurred at *Fort Marcy, N. Mex.*, and *San Carlos, Ariz.*, the former reporting 3 deaths, with a mean strength of 80, or a rate of 37.50 per 1,000, while at the latter 4 deaths occurred in a mean strength of 109.

COLORED TROOPS.—The mean strength of colored troops serving in the region of the Cordilleras was 708; 41 in the northern, 112 in the middle, and 555 in the southern group. In the northern group the admission and constant non-effective rates of the colored troops, counting all cases of disease and injury, were 1,415 and 77.39, respectively, per 1,000 of mean strength, as against 1,154 and 41.77 for the white troops.

In the middle group these rates were, for the colored 1,098 and 24.97, as against 1,107 and 34.78 for the white troops.

In the southern group, where the mean strength of colored troops was much greater than in either of the other groups, and furnished a more reliable basis for comparison, the rates were 1,476 and 57.12 for the colored, and 1,105 and 42.18 for the white.

Excluding from the calculation injuries, venereal diseases, and alcoholism, the constant non-effective rate of the colored troops remains higher than that of the white in the northern and southern groups and lower in the middle group, being, respectively, 34.36, 17.04, and 33.08 for the colored, and 27.22, 23.38, and 29.38 for the white, in each of the three groups.

Excluding the cases mentioned above, the monthly admission rate of the colored troops in the northern group during November and December averaged 90 per 1,000 of mean strength, and that of the white troops

58 per 1,000 for the same period. The diseases, in the rates of occurrence of which the greatest disparity between the two races is observed, are dyspepsia, colic and constipation, and simple ephemerical and catarrhal fevers, the colored soldier showing for these causes admission rates for the year of 121.95 for the first group of diseases, and 73.17 for the second per 1,000 of mean strength, while those for the white soldier are only 39.90 and 5.82. In the middle group during November and December the monthly admission rate of the colored troops averaged 113.04, and that of the white 60.64, per 1,000 of mean strength. The diseases showing the greatest disproportion in rates of occurrence were constitutional diseases, diseases of the genito urinary system, and quinsy, their rates for the year for the colored troops being, respectively, 80.36, 35.71, and 26.79, while for the white troops they were 43.56, 11.75, and 5.87 per 1,000 of mean strength. In the southern group the admission rate for the colored troops in the month of October was 137.80 per 1,000 of mean strength, while that for the white troops was only 57.53 for the same period, the rate for the colored troops being more than twice that for the white. For diseases of the respiratory system, diseases of the digestive system, constitutional diseases, and malarial fevers, the rates for colored troops in this group were, respectively, 118.92, 192.79, 81.08, and 129.73 per 1,000 of mean strength, and those for the white troops 68.89, 142.76, 49.01, and 90.20.

INDIAN SCOUTS.—The Indian scouts in this region gave a mean strength of 45 for the year, 9 in the northern, 6 in the middle, and 30 in the southern group. There were no admissions to sick report or deaths reported in the northern or middle groups. In the southern group there were two admissions to sick report, or a rate of 67 per 1,000 of mean strength, and one death, or a rate of 33 per 1,000 of mean strength. The admissions to sick report and the deaths were all due to gunshot wounds.

CIVILIANS WITH COMMAND.—With a mean strength of 5,362 officers and enlisted men serving in the region, there was constantly present during the year an average of 2,204 civilians. Of this number 530 were adult males, 775 adult females, and 899 children. The admissions to sick report numbered for the adult males 164, and the deaths 5; for the adult females 890, and the deaths 6; for the children 758, and the deaths 24; or an aggregate of 1,812 admissions and 35 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of August in the northern group, December in the middle group, and March and April in the southern group, the prevailing diseases being those of the digestive and nervous systems in the northern group, diseases of the respiratory system, and epidemic catarrh, in the middle group, and diseases of the respiratory and digestive systems, catarrh, and measles in the southern group.

The *least sickness* was reported during the month of May in the northern group, November in the middle group, and January in the southern group.

REGION OF THE PACIFIC COAST.

This region comprises areas of great diversity of elevation, rain-fall, and temperature, so that a strict classification can not be made without a very minute subdivision; but as the 13 military stations at present occupied are, with one exception, on or near the sea-coast, and none of them has an elevation of over 400 feet, it is thought to be sufficient for

purposes of comparison to divide them into two groups, the northern and southern.

The following table shows the stations in the region of the Pacific Coast, with mean strength of command, rates of admission to sick report, constant non-effectiveness, discharges, and deaths:

Names of stations.	Mean strength (corrected for time).	Cases.			Admission rate per 1,000 of mean strength.	Average number sick daily.	Constantly non-effective per 1,000 of mean strength.	Discharges for disability.	Deaths.
		Disease.	Injury.	Total.					
Northern group:									
Fort Townsend, Wash.	53	44	12	56	1,056.60	2.13	40.27	1	.....
Fort Canby, Wash.	66	49	15	64	969.70	1.35	20.46	2	.....
Vancouver Barracks, Wash.	470	385	102	487	1,036.17	19.32	41.11	15	4
In the field	10								
Total	599	478	129	607	1,013.36	22.81	38.07	18	4
Southern group:									
Fort Gaston, Cal.	36	52	12	64	1,777.77	2.29	63.70	1	.....
Fort Mason, Cal.	42	26	6	32	761.90	.87	20.74	1	2
Alcatraz Island, Cal.	91	42	11	53	582.42	1.74	19.15	1	.....
Angel Island, Cal.	142	88	20	108	760.56	5.19	36.58	8	1
Presidio of San Francisco, Cal.	404	201	82	283	700.50	13.19	32.64	13	3
Benicia Barracks, Cal.	63	31	12	43	682.54	2.32	36.88	1	.....
Benicia Arsenal, Cal.	54	34	7	41	759.28	1.11	20.55		.....
San Francisco, Cal.	43	1	1	2	46.61	.06	1.40		.....
Los Angeles, Cal.	28	1	4	5	178.57	.23	8.12		.....
San Diego Barracks, Cal.	51	59	9	68	1,333.23	2.77	54.31	3	.....
In the field	67	75	14	89	1,328.36	2.12	31.65	8	.....
Total	1,021	610	178	788	771.79	31.90	31.24	36	6
Total for region	1,620	1,088	307	1,395	861.11	54.70	33.77	54	10

The force serving in this region during the year consisted of 19 companies of infantry, 11 batteries of artillery, 2 troops of cavalry, and 2 detachments of ordnance. These troops were all white. The mean strength, including officers, was 1,620 men. The total number of admissions to sick report was 1,395. Of this number, 717 were treated in quarters, 589 in hospital, and 89 in the field. The number of men daily non-effective on account of sickness averaged, in quarters 18, in hospital 35, in the field 2, total 55; from disease 43, injury 12. The discharges for disability numbered, from quarters 16, from hospital 30, from the field 8, total 54; for disease 50, for injury 4. The deaths numbered, in quarters 6, in hospital 4, total 10; from disease 5, injury 5.

The admission rate per 1,000 of mean strength was 861.11 for all men who were excused from any portion of their military duty on account of sickness, but for those cases which required admission to hospital the rate was 363.58. The ratio of deaths per 1,000 of mean strength was 6.17, in the proportion of 2.47 in hospital, and 3.70 in quarters; 3.08 from disease, and 3.09 from injury. The ratio of discharges for disability was 33.33, in the proportion of 9.87 from quarters, 13.53 from hospital, and 4.94 from the field; for disease 39.83, and for injury 2.47. The ratio of constant non-effectiveness on account of sickness was 33.77 per 1,000 of mean strength, in the proportion of 21.22 in hospital, 11.24 in quarters, and 1.31 in the field; 26.51 from disease, and 7.26 from injury. The average duration of each case of sickness was, for those treated in quar-

ters 9 days, in hospital 21 days, in the field 9 days, and for all cases treated 14 days; for disease and injury each 14 days. The total loss of time on account of sickness averaged 12 days for each soldier in the command.

The average duration of treatment for patients who recovered and were returned to duty was 11 days, for those who were discharged for disability 53 days, and for those who died 48 days. The ratio of recoveries per 1,000 of all admissions to sick report was 950.54, of discharges for disability 38.71, and of deaths 7.18.

The following table shows for each group of posts in the region of the Pacific Coast, and for the whole region, the number and classified causes of all admissions to sick report, deaths, and discharges occurring during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each:

NORTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratio per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges
Injuries	1,653	12.8	129	2	2	7.56	215.36	2.34	3.34
Veneral diseases	929	25.1	37	.....	2	4.25	61.77	.....	2.34
Diseases of the locomotor system	887	16.1	55	.....	4	4.06	91.82	.....	6.68
Diseases of the respiratory system	862	16.9	51	.....	2	3.94	85.14	.....	2.34
Diseases of the digestive system	784	9.7	81	.....	2	3.59	135.23	.....	2.34
Constitutional diseases	507	46.1	11	.....	2	2.32	18.36	.....	2.34
Diseases of the nervous system	456	11.4	40	.....	.....	2.09	66.78	.....	.....
Malarial diseases	441	9.2	48	.....	.....	2.02	80.13	.....	.....
Diseases of the genito-urinary system (non-venereal)	409	31.5	13	1	.....	1.87	21.70	1.67	.....
Diseases of the eye	225	18.7	12	.....	1	1.03	20.03	.....	1.67
Dietic diseases	221	5.4	41	.....	.....	1.01	68.45	.....	.....
Specific febrile and acute infectious diseases	198	15.2	13	.....	.....	.91	21.70	.....	.....
Diarrhoeal diseases	190	5.4	35	.....	.....	.87	58.43	.....	.....
Diseases of the integumentary system	179	8.5	21	.....	.....	.82	35.06	.....	.....
Diseases of the circulatory system	125	15.0	8	1	1	.57	13.36	1.67	1.67
Diseases of the ear	78	19.5	4	.....	1	.86	6.68	.....	1.67
Diseases of the lymphatic system	71	13.5	2	.....	1	.32	3.34	.....	1.67
Zoögenous diseases	57	19.0	3	.....	.....	.26	5.01	.....	.....
Septic diseases	48	24.0	2	.....	.....	.22	3.34	.....	.....
Unclassified diseases	4	4.0	1	.....	.....	.02	1.67	.....	.....
Total	8,324	13.7	607	4	18	38.07	1,013.36	6.68	30.66

SOUTHERN GROUP.

Classified causes.	Time lost—		Number of—			Ratio per 1,000 of mean strength of—			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'tha	Discharges	Men constantly non-effective.	Admissions to sick report.	D'tha	Discharges
Injuries	2,637	14.8	178	3	2	7.08	174.34	2.94	1.96
Veneral diseases	1,566	28.0	56	.....	6	4.20	54.85	.....	5.88
Constitutional diseases ..	1,296	32.4	40	.....	3	3.48	39.18	.....	2.94
Diseases of the digestive system	970	10.5	92	.....	3	2.60	90.11	.....	2.94
Diseases of the respiratory system	739	10.3	72	.....	3	1.98	70.52	.....	2.54
Diseases of the nervous system	637	14.5	44	1	2	1.71	43.10	.98	1.96
Diseases of the integumentary system	537	7.8	69	.....	.....	1.44	67.58	.....	.....
Diseases of the circulatory system	527	75.3	7	.....	5	1.41	6.86	.....	4.90
Malarial diseases	504	13.3	38	.....	.....	1.35	37.22	.....	.....
Diseases of the genito-urinary system (non-venereal)	451	45.1	10	2	.....	1.21	9.79	1.06	.....
Specific febrile and acute infectious diseases	327	36.3	9	.....	.....	.83	8.81	.....	.....
Diarrhoeal diseases	314	5.0	63	.....	.....	.84	61.70	.....	.....
Diseases of the eye	269	22.4	12	.....	2	.72	11.75	.....	1.96
Diseases of the locomotor system	268	10.2	26	.....	5	.71	25.47	.....	4.90
Dietic diseases	192	4.6	42	.....	.....	.52	41.14	.....	.....
Diseases of the lymphatic system	103	17.1	6	.....	.....	.28	5.88	.....	.....
Septic diseases	58	58.0	1	.....	.....	.16	.98	.....	.....
Zoogenous diseases	57	4.1	14	.....	.....	.15	13.71	.....	.....
Typho-malarial fever	53	53.0	1	.....	.....	.14	.98	.....	.....
Developmental diseases ..	19	19.0	1	.....	.....	.05	2.98	.....	3.92
Diseases of the ear	12	4.0	3	.....	1	.03	2.94	.....	.98
Diseases of the nose	11	11.0	1	.....	.....	.03	.98	.....	.....
Parasitic diseases	7	7.0	1	.....	.....	.02	.38	.....	.....
Unclassified diseases	91	45.5	2	.....	.....	.24	1.96	.....	.....
Total	11,643	14.8	788	6	36	31.24	771.79	5.88	35.26

TOTAL FOR THE REGION.

Injuries	4,290	14.0	307	5	4	7.26	189.51	3.09	2.47
Veneral diseases	2,495	26.8	93	.....	8	4.22	57.41	.....	4.94
Constitutional diseases ..	1,803	35.4	51	.....	5	3.05	31.48	.....	3.09
Diseases of the digestive system	1,754	13.0	173	.....	5	2.97	106.79	.....	3.09
Diseases of the respiratory system	1,601	13.0	123	.....	5	2.71	75.93	.....	3.09
Diseases of the locomotor system	1,153	14.2	81	.....	9	1.95	50.00	.....	5.56
Diseases of the nervous system	1,093	13.0	84	1	2	1.85	51.85	.62	1.23
Malarial diseases	945	11.0	86	.....	.....	1.60	53.09	.....	.....
Diseases of the genito-urinary system (non-venereal)	860	37.4	23	3	.....	1.45	14.20	1.85	.....
Diseases of the integumentary system	716	8.0	90	.....	.....	1.21	55.56	.....	.....
Diseases of the circulatory system	652	43.5	15	1	6	1.10	9.26	.62	3.70
Specific febrile and acute infectious diseases	525	23.9	22	.....	.....	.89	18.58	.....	.....
Diarrhoeal diseases	504	5.1	98	.....	.....	.85	60.49	.....	.....
Diseases of the eye	494	20.6	24	.....	3	.84	14.81	.....	1.85
Dietic diseases	413	5.0	83	.....	.....	.70	51.23	.....	.....
Diseases of the lymphatic system	174	21.7	8	.....	1	.29	4.94	.....	.62
Zoogenous diseases	114	6.7	17	.....	.....	.19	10.49	.....	.....
Septic diseases	106	35.3	3	.....	.....	.18	1.85	.....	.....
Diseases of the ear	90	12.9	7	.....	2	.15	4.32	.....	1.23
Typho-malarial fever	63	53.0	1	.....	.....	.09	.62	.....	.....
Developmental diseases ..	19	19.0	1	.....	4	.03	.62	.....	2.47
Diseases of the nose	11	11.0	1	.....	.....	.02	.62	.....	.....
Parasitic diseases	7	7.0	1	.....	.....	.01	.62	.....	.....
Unclassified diseases	95	31.7	3	.....	.....	.16	1.85	.....	.....
Total	19,967	14.3	1,395	10	54	33.77	861.11	6.17	35.33

SPECIAL DISEASES.—For *pneumonia* the admission rate was 0 per 1,000 of mean strength in the northern group, and 2.94 in the southern; for *pulmonary phthisis* it was 3.34 in the northern, and 1.96 in southern; for *bronchitis*, 71.79 in the northern, and 50.93 in the southern; for *catarrh and common colds*, 3.34 in the northern, and 9.79 in the southern; for *articular rheumatism*, 16.69 in the northern, and 35.26 in the southern; for *muscular rheumatism*, 85.14 in the northern, and 19.59 in the southern; for *diarrhœa (acute and chronic)*, 51.75 in the northern, and 40.16 in the southern; for *dysentery (acute and chronic)*, 0 in the northern, and 17.63 in the southern; for *cholera morbus*, 6.68 in the northern, and 3.92 in the southern; for *paroxysmal (malarial) fevers*, 80.13 in the northern, and 37.22 in the southern; for *typhoid fever*, 0 in the northern, and 5.88 in the southern.

Of the class of *specific febrile and acute infectious diseases*, 13 admissions to sick report, or a rate of 21.70 per 1,000 of mean strength, were reported in the northern group, and 9 admissions, or a rate of 8.81 per 1,000, in the southern.

PERIODS OF SICKNESS AMONG TROOPS.—Counting all cases of disease and injury, the period of *greatest sickness* among the troops serving in the region of the Pacific Coast during the year comprised the month of January in the northern group, and the months of August and September in the southern group. During this period in the northern group the number constantly non-effective on account of sickness was 49.02 per 1,000 of mean strength, and the principal causes of non-effectiveness were, in the order of their relative importance, venereal diseases and alcoholism, diseases of the respiratory system, and remittent fever. In the southern group, during the period of greatest sickness, the daily non-effective rate was 37.05 per 1,000 of mean strength, and the prevailing causes were injuries, venereal diseases, articular rheumatism (subacute and chronic), and diarrhœal diseases.

July showed a greater number of admissions to sick report than any other month of the year in both the northern and southern groups, the rate per 1,000 of mean strength being 99.03 and 93.00, respectively. The number constantly non-effective on account of sickness was greatest in January in the northern group, and in September in the southern, the rates per 1,000 of mean strength being 49.02 and 37.46, respectively.

The period of *least sickness* comprised the months of June and July in the northern group, and June in the southern, the constant non-effective rates per 1,000 of mean strength being 28.99 and 21.70, respectively.

In the above computations all cases of disease and injury have been included, but if cases of injury, venereal disease, and alcoholism are excluded from the calculation, it is found that the period of greatest sickness changes to January and February in the northern group, and to December in the southern, and the constant non-effective rate becomes much smaller. In the first group, excluding the cases mentioned above, the prevailing causes of sickness were diseases of the respiratory system, articular rheumatism (subacute and chronic), mumps, muscular rheumatism, and remittent fever, and the constant non-effective rate was 36.05 per 1,000 of mean strength, that for the year being 25.25. In the second group the principal causes of disability were diseases of the digestive system, diseases of the respiratory system, typhoid fever, and diseases of the integumentary system, and the constant non-effective rate was 26.69 per 1,000 of mean strength, that for the year being 19.45.

Exclusive of injuries, venereal diseases, and alcoholism, the period of least sickness comprised the month of August in the northern group, and the months of May and June in the southern, the constant non-

effective rates being 16.65 per 1,000 of mean strength for the northern group, and 12.69 for the southern.

HEALTH OF INDIVIDUAL POSTS.—In the northern group, *Fort Townsend, Wash.*, furnished the highest admission rate for the year, 1,056.60 per 1,000 of mean strength; *Vancouver Barracks, Wash.*, the highest constant non-effective and death rates, 41.11 and 8.51, respectively. In the southern group, *Fort Gaston, Cal.*, furnished both the highest admission and constant non-effective rates, 1,777.77 and 63.70 per 1,000, respectively; *Fort Mason, Cal.*, the highest death rate, 47.62 per 1,000 of mean strength.

Neither colored troops nor Indian scouts were in service in this region during the year.

CIVILIANS WITH COMMAND.—With a mean strength of 1,620 officers and enlisted men serving in the region, there was constantly present during the year an average of 1,176 civilians. Of this number 310 were adult males, 381 adult females, and 485 children. The admissions to sick report numbered for the adult males 189, with no deaths; for the adult females 208, and the deaths 2; for the children 334, and the deaths 6; or an aggregate of 731 admissions and 8 deaths.

The period of *greatest sickness* among civilian attachés comprised the month of April in the northern group of posts, and November in the southern, the prevailing diseases being those of the respiratory system in the northern, and of the respiratory and digestive systems in the southern group. The *least sickness* was reported during the month of November in the northern group, and in September in the southern group.

HEALTH OF THE ARMY AS A WHOLE.

The mean strength of the Army for the year, including officers and both white and colored enlisted men, was 23,841, as shown by the monthly reports of medical officers. Of this number 21,601 were white, and 2,240 were colored (of African descent). These figures represent the average number present during each day of the year, with commands from which reports were received by the Medical Department. But the mean strength of the entire Army, as shown by the returns of the Adjutant-General, was considerably greater than that given above, being 23,937 white, and 2,428 colored, or a total of 26,365 men. The discrepancy between the two sets of figures is due to the fact that every officer and enlisted man of the Army is accounted for on the returns of the Adjutant-General, while the consolidated reports of the Medical Department show only the strength of the commands from which these reports are received, and do not include the strength of officers and enlisted men on detached service and of those commands to which no medical officer is attached, or from which no reports are received.

All the ratios given under the heads of the different regions are based on the mean strength as shown by the medical reports, and, with the exception of the death and discharge rates, are very nearly correct, because no cases of disease or injury are reported for that portion of the Army whose mean strength is not reported also, and the number of cases thus lost probably balances the loss in strength. But in the record of deaths and discharges no such loss occurs, for all must, of course, be reported from one source or another; so that these two ratios, as stated for the several regions, are somewhat too high, because they are based upon the mean strength reported by medical officers, which, as above stated, is somewhat less than the actual strength of the respective commands. For the different regions, however, no other strength than that given in the medical reports is at hand, and consequently it has been necessary to use this strength in calculating all the ratios for these regions; but for the whole Army the mean strength as shown by the Adjutant-General's returns is available, and

has been used in computing the rates of *death and discharge*. For all other ratios the mean strength shown by the consolidated reports of the Medical Department is used, and not that of the Adjutant-General, which would make these ratios too low, for reasons indicated above.

The Indian scouts employed as auxiliaries to the regular troops have not been included in the mean strength of the Army, or in calculating any of the ratios given in this report, for the reason that they have so little in common with the regular troops in respect of their surroundings, habits, manner of living, duration of service, etc., that no comparisons of any value can be made concerning them; and when sick they so rarely come under the observation of medical officers that the reports of commands to which they are attached furnish but little or no information relative to the amount and character of sickness among them. (Health of the Army, 1886.)

In the following table the more important statistics relative to the health of the Army for the calendar year ending December 31, 1887, are briefly shown:

	White.	Colored.	Total.
Average strength as shown by returns of the Adjutant-General..	*23,937	*2,428	*26,365
as shown by reports of the Medical Department..	†21,601	†2,240	†23,841
All admissions to sick report during the year.....	26,600	3,127	29,727
treated in hospital.....	12,968	1,435	14,403
treated in quarters.....	13,135	1,665	14,800
treated in the field.....	497	27	524
Ratio of all admissions per 1,000 of mean strength.....	1,231.42	1,395.98	1,346.88
for previous year.....	1,239	1,409	1,363
for preceding decade.....	1,655	1,843	1,672
Admissions for disease.....	21,438	2,450	23,888
ratio per 1,000 of mean strength.....	992.45	1,093.75	1,001.97
for previous year.....	1,017	1,236	1,036
for preceding decade.....	1,414	1,576	1,429
Admissions for injury.....	5,162	677	5,839
ratio per 1,000 of mean strength.....	238.97	302.23	244.91
for previous year.....	222	263	226
for preceding decade.....	241	267	244
Ratio per 1,000 of mean strength of cases treated in hospital.....	600.34	640.63	604.13
of cases treated in quarters.....	608.07	743.30	626.78
of cases treated in the field.....	23.01	12.05	21.98
Average number constantly non-effective during the year.....	907.08	103.20	1,010.28
ratio per 1,000 of mean strength.....	41.99	46.07	42.38
for the previous year.....	39	43.4	39.4
for the preceding decade.....	44.12	43.34	44.05
Number of days lost on account of sickness during the year.....	331,086	37,668	368,754
average for each man of the Army.....	15.3	16.8	15.5
for the previous year.....	14.2	15.9	14.4
for the preceding decade.....	16.1	15.82	16.08
Average number of days each case was treated.....	12.4	12	12.4
for the previous year.....	11.5	10.6	11.4
for the preceding decade.....	10.2	6	9.9
Average days treatment for patients returned to duty.....	11	11	11
discharged for disability.....	75	76	75
who died.....	26	22	25
Number of discharges for disability.....	637	77	714
ratio per 1,000 of mean strength.....	26.61	31.71	27.08
for the previous year.....	24.9	24.6	24.9
for the preceding decade.....	32.08	30.74	31.96
Number of discharges for disease.....	578	70	648
ratio per 1,000 of mean strength.....	24.15	28.83	24.58
for the previous year.....	22.83	22.05	22.76
for the preceding decade.....	28.02	26.19	27.86
Number of discharges for injury.....	59	7	66
ratio per 1,000 of mean strength.....	2.46	2.88	2.50
for the previous year.....	2.11	2.54	2.15
for the preceding decade.....	4.06	4.55	4.10
Number of deaths from all causes.....	188	26	214
ratio per 1,000 of mean strength.....	7.85	10.71	8.12
for the previous year.....	9	7.2	8.8
for the preceding decade.....	11.14	13.43	11.34
Number of deaths from disease.....	130	19	149
ratio per 1,000 of mean strength.....	5.43	7.83	5.65
for the previous year.....	5.90	4.24	5.75
for the preceding decade.....	6.19	7.61	6.32
Number of deaths from injury.....	58	7	65
ratio per 1,000 of mean strength.....	2.42	2.88	2.47
for the previous year.....	3.08	3.97	3.07
for the preceding decade.....	4.95	5.82	5.02

*Used in computing the ratios of deaths and discharges for the whole Army.

†Used in computing all ratios for the Army, except those of deaths or discharges.

ADMISSIONS TO SICK REPORT.

Medical officers of the Army are required to record and report in detail the cases of all officers or enlisted men who are excused from the whole, or any portion, of their military duty on account of sickness, and this regardless of whether the case is treated in hospital, quarters, or the field, or whether it requires any treatment at all, the object being to secure a reliable record of every case of disease or injury, whether trivial or serious, by which the effective force of the Army suffers any impairment whatever, or which can be made the basis of a future claim against the Government. Furthermore, it not infrequently occurs that patients who have been reported as returned to duty are re-admitted one or more times for a recurrence of the original disability, and are taken upon sick report and accounted for as new cases of that disability.

It is evident, therefore, that the aggregate of admissions to sick report is very much increased by the inclusion of many trifling and unimportant cases, as well as by re-admissions for recurrent disabilities previously recorded as terminating in a return of the patients to duty, and that the total admission rate can not be used for purposes of exact comparison, or be considered a reliable index of the health of the Army. For these purposes the ratios of constant impairment of force, and of deaths and discharges, are much more reliable, as is, to a less degree, the ratio of admissions to hospital. Wherever practicable in this report the number and ratio per 1,000 of mean strength of cases treated in hospital, in quarters, and in the field, have been stated separately.

The total number of admissions to sick report for all causes during the year 1887 was 29,727, or a rate of 1,246.88 per 1,000 of mean strength, as against a rate of 1,263 for 1886, and 1,672 for the previous decade, showing that the improvement noted in the last annual report has continued.

The admissions for disease during the year numbered 23,888, and for injury 5,839, giving rates of 1,001.97 and 244.91, respectively; these rates for 1886 were, for disease 1,036.48, for injury 226.07; and for the previous decade, disease 1,428.51, injury 243.64.

From a comparison of the figures given above it becomes evident that, while the total rate of occurrence of disabilities in the Army has been greatly diminished, this diminution has been confined to those disabilities which owe their origin to disease, the rate for those due to injury being considerably higher for 1887 than for 1886, and a little higher than the average for the previous decade. It is manifest, therefore, that the decrease which has taken place in the total admission rate of the Army must be attributed entirely to a reduction in the number, or a lessening of the activity, of the causes of disease, or to both combined; and there can be no doubt that the improvement noted is largely the result of the increased attention which has lately been paid to matters pertaining to the hygiene of the Army, and the consequent changes for the better which have been effected in the sanitary conditions to which the troops are subjected.

The number of cases treated in hospital during the year was 14,403, in quarters 14,800, and in the field 524, giving admission rates of 621, 604, and 22, per 1,000 of mean strength of the whole Army, respectively. For 1886 these rates were 546, 688, and 29.

The cases of officers aggregated 1,035, their admission rate being 628.42 per 1,000 of mean strength. The cases of enlisted men numbered 28,692, and their rate was 1,292.78 for all admissions. But for patients requiring treatment in hospital, nearly all of whom were enlisted men, the

admission rate was 621, which is a little lower than the total rate for the officers, nearly all of whom were treated in quarters.

Excluding cases of injury from the calculation, and dealing only with disabilities due to disease, it is found that the engineers gave the highest ratio for this class of admissions, 1,792.12; recruits at depots the next, 1,499.40; and other branches of the service in the following order: ordnance, 1,107.97; artillery, 1,046.63; cavalry, 998.47; infantry, 985.91.

Among men of from 16 to 20 years of age the admission rate for disease was 1,692.31; from 21 to 25, 1,334.71; from 26 to 30, 913.82; and for all ages over 30, 811.56. In the first five years of service it was also much higher than for any subsequent period, being 1,151.86 for men with 5 years' service or under, and for all over that 778.76 per 1,000 men of each group of ages. The different nativities represented in the Army gave rates (injuries excluded) in the following order: Scotch, 1,151.11; French, 1,084.91; English, 1,057.97; *United States*, 1,028.30 (white, 1,014.67, colored, 1,103.03); Irish, 1,023.35; Swiss, 943.93; Canadian, 935.34; Austrian, 920.40; Scandinavian, 906.02; Danish, 887.57; German, 874.58.

The region of Central Timbered Plains and Hills showed the highest admission rate of all causes (injuries included), 1,944.23, and the highest for disease only, 1,668.45; the Pacific Coast gave the lowest for all causes, 861.11, and the lowest for disease only, 671.61. During the previous year the former region gave the highest rate, and the latter the next to the lowest. The Northern Lakes, which for the past year gave next to the lowest rate, in 1886 gave the lowest.

CONSTANT NON-EFFECTIVENESS.

For reasons previously stated the actual impairment of force which the Army suffers on account of sickness, as well as the relative importance of the various causes of sickness, can not be measured with any degree of accuracy by the number of admissions to sick report, but they are shown very clearly by the aggregate loss of time which these admissions individually and collectively cause, and from this aggregate the average non-effectiveness can be readily and accurately determined, as well as the extent to which the different causes of disability are operative in impairing the health and efficiency of troops.

The total loss of time on account of disability during the past year was 368,754 days, or an average of 15.5 days for each man in the Army, and was equivalent to the loss of the services of 42.38 men per 1,000 of mean strength of the Army for each day of the year. These figures represent a ratio of constant non-effectiveness somewhat higher than that of the previous year, which was 39.4, but lower than that of the preceding decade, which was 44.0.

The Army of the United States suffered a constant impairment of force by reason of disability greater than that shown by the latest accessible reports of any of the foreign armies mentioned below, except the British. The ratios of constant non-effectiveness per 1,000 of mean strength of the various armies are as follows, arranged in the order of their relative positions: Great Britain (1885), 57.9; *United States* (1887), 42.38; *United States* (1876-'85), 44.0; Austria (1886), 41.0; France (1884), 39.3; Prussia and Württemberg (1881-'82), 38.9; Italy (1885), 33.4; Belgium (1886), 28.8.

The ratio of non-effectiveness due to diseases was 33.70 per 1,000 of mean strength (white 33.47, colored 35.84); that due to injuries was 8.68 (white 8.52, colored 10.23).

The constant non-effective rate of patients treated in hospital was 28.37, in quarters, 13.62, and in the field .39 per 1,000 of mean strength of the whole Army, against 25.93, 12.69, and .79 for the previous year. The fact that the admission rate of patients treated in quarters was higher than that of patients treated in hospital, while the non-effective rate of the former was less than one-half that of the latter, goes to show not only that the disabilities treated in quarters were relatively much less important factors in the impairment of the efficiency of the Army than those treated in hospital, but that, as previously stated, the total admission rate can not be safely used for purposes of comparison or be considered a reliable index of the health of the Army.

The non-effective rate of officers (45.28) was somewhat in excess of that of enlisted men (42.16), although the admission rate of the former was only a little more than half that of the latter. Recruits at depots gave the highest non-effective rate, 67.14, and the engineers the next, 50.89; in the other departments and arms of the service no noticeable variation from the mean was shown.

Excluding injuries from the calculation, and considering only disabilities dependent upon disease, so as to estimate more accurately the influences of race, nativity, age, and length of service, it is found, as above stated, that the colored troops showed a greater degree of constant impairment of force from disease alone than the white troops. Recruits at depots gave the highest non-effective rates, 60.40, and others in the following order: engineers, 43.90; cavalry, 34.12; infantry, 33.15; artillery, 29.66; ordnance, 28.69; all others, 11.60. For men of from 16 to 25 years of age this rate was 43.60; from 26 to 30, 28.91; over 30, 29.81. For the first five years of service it was 37.42, and for all over that 28.17. Of the different nativities represented the French gave the highest rate, 44.46; the Scotch second, 42.21; and the *United States* third, 35.59. The Austrians gave the lowest, 25.63; the Danish next, 25.94; and the Irish next, 28.80.

The troops serving in the region of Central Timbered Plains and Hills suffered the greatest constant impairment of force during the year, their non-effective rate being (injuries included) 79.07 per 1,000 of mean strength; the Gulf Coast stood second with a rate of 49.50. The Northern Lakes gave the lowest rate, 25.72, and, excluding the Appalachian region, the Pacific Coast the next, 33.77. The two regions first mentioned occupied the same relative positions during the previous year, 1886, but the lowest rates for that year, excluding the Appalachian region, were given by the regions of the Northern Lakes and Eastern Timbered Plains and Hills.

The special causes which produced the greatest constant impairment of force during the year were as follows, in the order of their respective non-effective rates: venereal diseases, 5.11 per 1,000 of mean strength; contusions and sprains, 3.77; malarial fevers and resulting conditions, 2.99; articular rheumatism, 2.68; diseases of the integumentary system, 2.25.

TIME LOST ON ACCOUNT OF SICKNESS.

Counting admissions to sick report of every description, the average loss of time on account of sickness during the year was 15.5 days for each man in the Army, showing a change for the worse as compared with the previous year, the average for 1887 being 1.1 days higher than that for 1886, and only .6 of a day lower than that for the previous

decade. The average for the colored troops was 16.8 days, and for the white 15.3.

In respect of the average sick time for each man, our own Army compares unfavorably with most foreign armies, all, whose reports are at hand, giving lower figures than our own, except the British. The average loss of time for each soldier in the various armies, according to the latest reports received, is as follows: Great Britain, 21 days; *United States*, 15.5; France, 14; Prussia and Württemberg, 13; Italy, 12; Austria, 11; Belgium, 11.

The loss of time for each case reported, or the average duration of treatment, was 12.4 days, against 11 days for 1886, and 9.6 for the previous decade. In this particular our Army compares very favorably with the armies of foreign countries, the several averages being, Great Britain, 19 days; Italy, 15; Austria, 14; *United States*, 12.4; Prussia and Württemberg, 11; France, 7; Belgium, 7.

The average duration of treatment for cases occurring among colored troops was 12.04 days, and for the white 12.45. For cases treated in hospital it was 17.1, in quarters 8.0, and in the field 6.5; for disease 12.3, and for injury 12.9; for patients who recovered and returned to duty 11; for those who died 25; and for those who were discharged for disability 75.

Counting all admissions to sick report the duration of treatment averaged longest in the Central Timbered Plains and Hills and Gulf Coast regions (15 days for each), and shortest (9 days) in the region of Eastern Timbered Plains and Hills (excluding the Appalachian region).

DEATHS.

The deaths from all causes during the year numbered 214; of these 65 were due to injury and 149 to disease. The death rate was 8.12 per 1,000 of mean strength, being a little lower than that for 1886, which was 8.82, and considerably lower than the rate for the previous decade, which was 11.4. The ratio of deaths from disease was 5.65 for the past year, 5.7 for 1886, and 6.3 for the previous decade; from injury 2.47 for the past year, 3.1 for 1886, and 5.0 for the decade. For cases treated in hospital, it was 4.55; in quarters 3.41; and in the field .15, per 1,000 of mean strength of the whole Army. For officers it was 9.3, and for enlisted men 8.0.

The death-rate of the Army of the United States continues to be higher than that of any of the foreign armies, whose reports are at hand, except the British and Italian. The rates of the various armies, as gathered from the latest reports received, are as follows: Great Britain, 11.4; Italy, 10.3; *United States*, 8.1; France, 7.6; Austria, 7.2; Belgium, 5.1; Prussia and Württemberg, 4.6.

The death-rate of the colored troops (10.71) was higher than that of the white (7.85). In 1886 the reverse was the case, the rates being 9.0 for the white and 7.2 for the colored; but the averages for the previous decade, 13.4 for the colored and 11.1 for the white, are in very nearly the same proportion as the rates for the past year.

The death-rates of the different branches of the service were as follows, arranged in order from the highest to the lowest: non-commissioned staff, including hospital corps, 16.6; recruits at depots, including depot detachments, 14.3; general officers, and officers of the general staff, 10.0; signal corps, 8.5; artillery, 8.4; infantry, 8.2; engineers, ~~7.2~~ ordnance, 6.3; cavalry, 5.7; general service, 3.9. Among men of

different ages the ratio of deaths was highest for those or from 16 to 20, 17 deaths in a mean strength of 199 for this quinquennial group, giving a death-rate of 85.4 for the group, or over ten times the average for the Army. The remaining groups of ages gave rates in the following order: over 60, 24.1 (2 deaths in a mean strength of 83); 46 to 50, 15.5; 41 to 45, 12.5; 36 to 40, 9.6; 31 to 35, 8.6; 51 to 55, 8.5; 21 to 25, 7.6; 56 to 60, 5.1; 26 to 30, the lowest, 3.6 (28 deaths in a mean strength of 7,731 for the group). For all ages not over 30 the death-rate was 6.61 per 1,000, and for all over 30, 10.29.

For the first quinquennial period of service the death-rate was 6.79; for the second, 6.11; and for all over 10 years, 12.79.

Of the various nationalities, the Scotch gave the highest death-rate, 12.1; the English the second, 11.4; and the German the third, 9.6. The Austrian gave the lowest, 4.6; the Canadian the second, 6.3; and the Irish the third, 7.0.

The region of Central Timbered Plains and Hills furnished the highest death-rate for the year, 17.57 (excluding the Appalachian region), and the Cordilleras the next, 10.07. The Prairies gave the lowest rate, 5.44, and the Pacific Coast the next, 6.17. In 1886 the Central Timbered Plains and Hills furnished the highest death-rate for the year, and the Eastern Timbered Plains and Hills the lowest.

Of the different causes of mortality *pneumonia* and *shot wounds* were charged with the greatest number of deaths, 26 each; *typhoid fever*, 17; *drowning*, 16; *diseases of the heart and valves*, 16; *pulmonary phthisis*, 13.

DISCHARGES FOR DISABILITY.

The total number of discharges for disability during the year was 714; of these 66 were for injury and 648 for disease. The ratio of all discharges per 1,000 of mean strength of the Army was 27.08, against 24.91 for the previous year, and 32.0 for the preceding decade. The ratio of discharges for disability the result of disease was 24.58 for the past year, 22.8 for 1886, and 27.9 for the previous decade; for injury, 2.5 for the past year, 2.1 for 1886, and 4.1 for the decade. For cases treated in hospital it was 18.21; in quarters, 8.53; and in the field, .34.

In comparison with foreign armies the United States stands third in the order of relative frequency of occurrence of discharges for disability. The rates of the various armies are as follows: Austria, 48.0; Prussia and Württemberg, 27.3; *United States*, 27.1; Great Britain, 19.3; France, 16.4; Italy, 14.1; Belgium, 8.9.

The colored troops gave a discharge rate (31.71) considerably higher than the white (26.61). For the previous year the rates of the two races were about equal (white 24.9, colored 24.6), but for the preceding decade the average rate of the white troops was the higher (white 32.1, colored 30.7).

To facilitate comparisons with previous reports of our own Army, and with the reports of certain foreign armies in which the same course has been pursued, the discharge rates given above have been computed on the mean strength of the whole Army, including officers, who, of course, furnished no discharges. If the mean strength of the enlisted men only, among whom all the discharges occurred, is taken as the basis of the calculation, the discharge rate for the Army becomes 29.50; for white troops 29.25, colored 31.75; for disease 26.77, injury 2.73; and for cases treated in hospital 19.83, in quarters 9.30, in the field .37.

Of the different branches of the service the engineers furnished the

greatest proportionate number of discharges, their rate being 44.2 per 1,000 of mean strength of enlisted men; the cavalry gave a rate of 35.3; infantry, 30.5; artillery, 26.8; recruits at depots, 23.1; ordnance, 19.3; signal corps, 8.8; general service, 3.9; non-commissioned staff, including hospital corps, 1.7.

For men not over twenty years of age the rate was 266.3 per 1,000 of mean strength (53 discharges in a mean strength of 199); from twenty-one to twenty-five, it was 35.2; and for all ages over twenty-five, 24.03. In the first quinquennial period of service it was 32.86; in the second, 21.25; and for all over 10 years, 25.91. Of the different nationalities the Scotch gave the highest rate, 50.2, and the Canadian the lowest, 17.5.

The region of the Gulf Coast showed the highest rate for the year, 63.33, and the Pacific Coast the next, 33.33; the Eastern Timbered Plains and Hills the lowest, 16.36 (excluding the Appalachian), and the Northern Lakes the next, 20.71. For the previous year the highest discharge rate was furnished by the Gulf Coast, and the lowest by the Northern Lakes.

The causes of disability for which the greatest number of discharges were reported were as follows: *venereal diseases*, which were charged with 104 discharges; *rheumatism*, 59; *pulmonary phthisis*, 48; *insanity*, 39; *diseases of the heart and valves*, 37; *hernia* 28; *epilepsy*, 25.

HEALTH OF VARIOUS REGIONS.

Taking the degree of constant impairment of force as the standard of comparison, it is found that, of the several regions into which the country has been divided, the Central Timbered Plains and Hills showed the greatest amount of sickness during the past year, as it did for the previous year, its constant non-effective rate being 79.07 per 1,000 of mean strength, or nearly double that of any other region. Its admission and death-rates were also very high, the former being 1,944.23 per 1,000 of mean strength, and the latter 17.57, both of which are very much higher than the corresponding rates of any other region. For the previous year its ratio of admissions was 2,222, of constant non-effectiveness 75, and of deaths 11.7 per 1,000 of mean strength, all of which were the highest for the year.

It is not to be inferred, however, that the excessive amount of sickness and mortality among troops serving in the region of Central Timbered Plains and Hills is wholly due to causes peculiar to the region itself, because, out of a total mean strength of 1,309 men for the year, the two large recruiting depots of Columbus Barracks, Ohio, and Jefferson Barracks, Mo., furnish 1,068, or 82 per cent. of the aggregate strength of the region, so that the figures given above are to be looked upon as relating chiefly to recruits at depots, who, as a class, always give exceptionally high rates of sickness and mortality.

But it should be noted here that the sickness and mortality among recruits in this region are very much greater than among recruits elsewhere; so that, after making all allowances, it is safe to say that, so far as the Army is concerned, the region of Central Timbered Plains and Hills is the unhealthiest section of the country in which troops are now stationed.

Next to the region of Central Timbered Plains and Hills, the Gulf Coast gave the highest non-effective rate, 49.50. The Northern Lakes gave the lowest, 25.72, and the Pacific Coast next, 33.77. The Appalachian region gave a non-effective rate of 26.07, but, as this was based upon a mean

strength of only 68 men, it has not been considered in making this comparison.

In making the calculations upon which the foregoing statement is based, all cases of disease and injury have been included, but if injuries, venereal diseases and alcoholism are excluded, so as to estimate more accurately the influences exerted upon the health of troops by peculiarities of environment, it is found that the relative positions of the several regions in respect of constant impairment of force remain as stated above, but, of course, that the different ratios become considerably smaller, the non-effective rate of the region of Central Timbered Plains and Hills being 57.21; Gulf Coast, 32.80; Northern Lakes, 15.04; Pacific Coast, 21.60.

HEALTH OF INDIVIDUAL POSTS.

Taking the degree of constant impairment of force as the measure, and including in the calculation all causes of disability, it appears that the recruiting depot at Jefferson Barracks, Mo., continued to enjoy for the past year, as it had for 1886, the unenviable distinction of being the unhealthiest post of the Army. With a mean strength of 669 men, chiefly cavalry recruits, its ratio of constant non-effectiveness was 96.79 per 1,000, or more than double the average for the Army, and 16 per 1,000 higher than the corresponding rate of any other station. Its admission rate was 2,133.03, and its death-rate 28.40, which were, respectively, the second and fifth highest rates of individual posts.

Malarial fevers, venereal diseases, and diarrhoeal diseases, were the leading causes of impairment of force, the constant non-effective rate of the first being 22.29, of the second 10.09, and of the third 7.52 per 1,000 of mean strength.

For the previous year the constant non-effective rate of this post was 100 per 1,000 of mean strength, the admission rate 3,008, and the death rate 21.44, from which it will be seen that for the past year, as compared with the previous one, the admissions to sick report were of decidedly less frequent occurrence, that the constant impairment of force was also somewhat less, but that the proportionate number of deaths was considerably greater. This increase in the death-rate was chiefly due to the unusually large number of fatal cases of pneumonia.

The excessive amount of sickness at Jefferson Barracks is owing in part, no doubt, to the fact that its garrison is largely composed of recruits; but that much of it is due to other causes is shown by a comparison of the rates of sickness and mortality at this depot with those of the other recruiting depots at David's Island, N. Y., and Columbus Barracks, Ohio, both of which stations give rates much lower than those of Jefferson Barracks, while one of them, David's Island, gives a constant non-effective rate lower than the average for the Army.

The following table shows the mean strength of command and the number and ratios, per 1,000 of mean strength, of admissions to sick report, men constantly non-effective on account of sickness, deaths, and discharges reported during the year at these recruiting depots, and for the whole Army:

	Number of—				Ratios per 1,000 of mean strength of—			
	Admissions.	Men constantly non-effective.	Deaths.	Discharges.	Admissions.	Men constantly non-effective.	Deaths.	Discharges.
Jefferson Barracks.....	1,427	64.75	19	15	2,133.03	96.79	28.40	22.43
Columbus Barracks ..	775	29.73	2	16	1,942.36	74.51	5.01	46.10
David's Island.....	825	22.69	5	9	1,437.28	39.53	8.71	15.68
Army.....	29,727	1,010.28	214	714	1,246.88	42.38	8.12	27.06

Fort Grant, Ariz., with a mean strength of 199, gave the second highest ratio of constant non-effectiveness, 80.15 per 1,000 of mean strength, the principal causes being venereal diseases, contusions and sprains, and malarial fevers, in the order of their relative importance. Fort Brown, Tex., stood third, with a mean strength of 132, and a non-effective rate of 76.94, the leading causes being the same as at Fort Grant, except that malarial diseases occupied the second place, and contusions and sprains the third. Fort Thomas, Ariz., came fourth with a non-effective rate of 74.54; Columbus Barracks, Ohio, fifth, 74.51; Fort Omaha, Nebr., sixth, 72.42.

Except in two instances, the highest ratios of admission to sick report were given by posts other than those at which the greatest actual impairment of force was reported, which fact only goes to substantiate the statement previously made that the admission rate alone can not be relied upon for purposes of comparison, or to serve as the measure of the health of a command.

The posts showing the highest ratios of admission to sick report for the year were: Willets Point, N. Y., 2,342.13; Jefferson Barracks, Mo., 2,133.03; Fort Myer, Va., 2,093.75; Fort Pembina, Dak., 1,988.10; Fort Selden, N. Mex., 1,976.75; Columbus Barracks, Ohio, 1,942.36.

The highest death-rates per 1,000 of mean strength were: Fort Marcy, N. Mex., 37.50; San Carlos, Ariz., 36.70; Fort Hancock, Tex., 31.75; Mount Vernon Barracks, Ala., 28.57; Jefferson Barracks, Mo., 28.40; Fort McHenry, Md., 25.64.

The highest ratios of discharge for disability per 1,000 of mean strength were: Fort Brown, Tex., 121.21; Fort Verde, Ariz., 76.92; Fort Du Chesne, Utah, 62.78; Fort Myer, Va., 62.50; Whipple Barracks, Ariz., 61.45; Fort Schuyler, N. Y., 57.97.

The smaller posts and arsenals have been excluded in making all of the foregoing comparative statements, but, notwithstanding this, the numbers involved in some of them are so small that the ratios given possess but little significance.

SPECIAL CAUSES OF ADMISSION TO SICK REPORT.

SPECIFIC FEBRILE AND ACUTE INFECTIOUS DISEASES.

The admissions for this class of diseases during the year numbered 523, the deaths 18, and the discharges none. There were 76 admissions, with 2 deaths, among colored troops, giving rates of 33.93 and .82 per

1,000 of mean strength, respectively. The corresponding rates for white troops were 20.69 and .67.

The admission rate for the whole Army was 21.94 per 1,000 of mean strength, against 8.36 for 1886, and an average of 25.39 for the previous decade. The unusually high rate for 1887 was chiefly due to an increase over previous years in the proportionate number of cases of typhoid fever, influenza, measles, mumps, and quinsy.

The death-rate for all diseases of this class, however, was only .68 per 1,000 of mean strength, while that for 1886 was .88, and for the previous decade .89, showing that, notwithstanding the greater prevalence of these diseases during the past year, the actual loss to the service by deaths therefrom was less than that of the previous year, or the average for the preceding decade.

These diseases were most prevalent, and attended with the highest mortality, among recruits at depots, their admission rate being 51.50 per 1,000 of mean strength, and their death-rate 3.29.

The cavalry arm of the service showed a lower admission rate than either the artillery or infantry, and a lower death-rate than the artillery, whereas in 1886 both the admission and death-rates of the cavalry for these causes were higher than those of the other arms.

The following table shows for the different arms of the service the ratios, per 1,000 of mean strength, of the admissions to sick report and deaths caused by each disease of this class:

Diseases.	Ratio per 1,000 of mean strength of each arm.									
	Admissions.					Deaths.				
	In-fantry.	Cav-alry.	Ar-tillery.	All others.	Whole Army.	In-fantry.	Cav-alry.	Ar-tillery.	All others.	Whole Army.
Typhoid fever	9.86	3.67	11.66	3.68	7.30	.42	.56	.70	1.32	.64
Measles	1.50	1.98	7.38	10.79	3.86					
Mumps	1.97	1.07	2.33	8.34	2.85					
Influenza	3.94	.46		1.96	2.22					
Quinsy	3.85	6.88	1.55	1.47	4.03					
Scarlet fever .....		.31			.08					
Whooping-cough .....			.39		.04					
Diphtheria .....	.09	.15		.49	.17					
Small-pox .....			.38	.25	.08					
Chicken-pox .....	.19	.15			.13					
Cerebro-spinal fever .....				.25	.04				.22	.04
All others of this class .....	.19	.61	7.00	.74	1.13					
Total	21.59	15.30	30.70	27.96	21.94	.42	.56	.70	1.54	.68

The Appalachian Mountain region gave the highest admission and death rates of the year for diseases of the specific febrile and acute infectious class, 73.53 and 14.71, respectively; but as these rates are based upon a mean strength of only 68 men, with 5 admissions and 1 death, the figures given have no particular significance. Excluding the foregoing, the region of Central Timbered Plains and Hills shows the highest admission rate, 45.84, and the highest death rate, 3.06, per 1,000 of mean strength. In the region of the Gulf Coast the admission rate was lowest, 3.33, and no deaths were recorded.

The following table shows the rates of occurrence of some of the principal diseases of this class in the Army of the United States for the year 1887, and the average for the previous decade, together with the

admission rates of the same diseases in certain foreign armies, as gathered from the latest reports accessible:

Diseases.	Armies.							
	United States, 1887.	United States yearly average, 1870-85.	Austria-Hungary, 1886.	Belgium, 1885.	France, 1886.	Great Britain, 1885.	Italy, 1885.	Prussia and Württemberg, 1881-82.
Typhoid fever	7.30	4.18	5.64	6.31	11.85	8.80	7.41	5.53
Typhus fever .....		.05	.07			.04	.09	.24
Yellow fever .....		.28				.03		
Small-pox .....	.08	.25	1.39	.22*	.36	.48	.05	.01
Variceloid .....		.19				.79		.03
Chicken-pox .....	.13	.15		.06		.10		
Measles	3.86	2.49	1.24	1.15	6.11	.89	6.44	.62
Scarlet fever .....	.08	.24	.16	1.58	1.27	.57	.11	1.87
Mumps	2.85	2.88	1.00	.38	(*)	.52	4.15	(*)
Diphtheria .....	.17	.58	.14	.20	(†)	.10	.03	1.63
Whooping-cough .....	.04	.07						
Cerebro-spinal fever .....	.04	.08	.06	.40	.08	.03	.33	.01
Cholera .....			.43		.69	1.25	.49	.02

* Mumps being included among diseases of the digestive system, the cases are not specially enumerated.

† The number, though quite large, is not definitely stated. Not less than 53 deaths are recorded under diphtheria. The French report calls attention to the continuously existing greater prevalence of diphtheria among troops performing stable duties. Judging from the death record of the Austrian and the Prussian armies, their experience does not seem to point in the same direction.

DIPHTHERIA.—Four cases of this disease, with no deaths, occurred among the white troops, and none among the colored troops. Jefferson Barracks, Mo., Chicago, Ill., Fort Robinson, Nebr., and Fort Hancock, Tex., each furnished one case. At Fort Wood, N. Y., in November, the disease appeared in the family of an enlisted man, and before it could be checked his wife and seven children were all affected; two children died; the remaining six cases recovered. A careful investigation was made, but the source of the infection was not discovered.

At West Point, N. Y., two cases of diphtheria, with one death, were reported during the month of June; all occurred in the family of an officer at the post. In reporting upon the origin of these cases, Surgeon A. K. Smith says:

The cases of diphtheria occurred through the criminal carelessness of a cook, employed in the family of an officer at the post. This woman lost a child from the disease on the 9th of May, and immediately afterward came up to the post, bringing with her some of the child's clothing, and notably a large lock of its hair. She denied that her child had been affected with any contagious or infectious disorder, but I have since learned from its physician the true nature of the child's illness. A few days before the children at the post were taken ill, this woman opened her trunk in their presence, and showed them the hair cut from her child's head, and thus undoubtedly communicated the infection.

At Jefferson Barracks, Mo., in March, Surgeon E. McClellan reported the appearance of a case of diphtheria in the person of a recruit who arrived at the depot on February 24, from rendezvous at Buffalo, N. Y., and said:

It is possible that this man may have come in contact with the disease in Saint Louis, Mo., where, according to newspaper reports, a number of cases have occurred. This is the only case of the disease which has appeared here. The case is mild and has been isolated.

At Fort Wayne, Mich., in January, Surgeon H. McElderry reports:

One child, a daughter of an enlisted man, died of diphtheria. * * * The family was promptly quarantined and all necessary precautions taken to prevent the further spread of the disease. * * * This case is the first of the kind that has occurred at this post to my knowledge, and I have been unable as yet to account satisfactorily for the origin of the disease.

At Fort Randall, Dak., in November, Assistant Surgeon W. C. Gorgas writes:

Three cases of diphtheria have occurred in the post this month, evidently due to importation. The post trader with his family of four children had been in Michigan; there had been diphtheria in the town which they visited; they left there on October 21, and reached this post on October 29. On the 25th one of the children was taken sick in Sioux City with a bad cold. I examined this child on November 12, and found its tonsils enlarged and congested, and am inclined to think that it had a mild attack of diphtheria. On the 6th of November two of the children were attacked with a disease which turned out to be diphtheria. On the 28th of November another child, who had been a constant companion of these children, was attacked. As soon as the disease was recognized, on the 11th these two families were isolated, and every attention given to the general condition of both families. The sick child was kept in one house and the others sent to another house.

In a subsequent special report Assistant Surgeon Gorgas notes the deaths of the two children taken sick on November 6. The first case, that of a child two years old, terminated fatally on November 11. In the other case, that of a boy six years old, laryngeal stenosis developed on the night of November 13. A hurried tracheotomy was performed, and afforded complete relief. A tube was introduced into the trachea, and all went well until the night of the 15th, when alarming symptoms of tracheal stenosis developed. The tube was removed, and the trachea swabbed out. After the swabbing more or less tenacious matter was coughed up. On November 22 the tube was finally removed; the child could speak in a whisper; fluids passed through the wound to a slight extent. On December 5, the wound had healed and swallowing was normal, but there was some loss of power in the legs. Improvement continued; the child could play about in the house and go out during the day, but the legs remained in the same condition. On December 20 there was a troublesome cough, caused apparently by liquids getting into the trachea, and inability to expectorate. December 25 he had an attack of pulmonary oedema after getting a piece of cake in the trachea; the muscles of the neck became involved in the paralysis; the pulmonary oedema increased, and he died on the night of the 27th.

TYPHOID FEVER caused 174 admissions and 17 deaths; of these, 162 cases with 15 deaths occurred among the white troops, and 12 cases, with 2 deaths among the colored, giving admission and death rates for the former of 7.50 and .63, respectively, per 1,000 of mean strength, and for the latter, 5.36 and .82.

The admission rate for the whole Army for typhoid fever was 7.30, or nearly double that for 1886, which was 3.95, as well as nearly double the average for the previous decade, which was 4.18. But the deaths from this cause during the year were only in the proportion of .64 per 1,000 of mean strength, which is a ratio considerably smaller than that for 1886 or the average for the previous decade, the former being .84 and the latter .69 per 1,000 of mean strength.

It is worthy of note that the cavalry arm of the service, which, from 1883 to 1886, inclusive, showed a very much higher admission rate for typhoid fever than either the artillery or the infantry, during the year 1887 gave a rate of only 3.67 per 1,000 of mean strength, against 11.66 for the artillery and 9.86 for the infantry. The death rate for the cavalry from this cause during the past year was .56 per 1,000 of mean strength, against .94 for 1886, and an average of 1.14 for the past four years. The infantry death rate (.42) for 1887 was somewhat lower than that of the cavalry, but the artillery rate (.70) was much higher. The average duration of treatment for each case was 50 days for the cavalry, and 46 days for both the infantry and artillery.

In view of the facts just stated, it becomes evident that the causes which, from 1883 to 1886, inclusive, led to a prevalence of, and mortality from, typhoid fever in the cavalry much greater than in the other arms of the service, were not operative during the past year, 1887. Much of the improvement in this respect is undoubtedly due to the changes for the better which have been effected in the sanitary condition of the depot for cavalry recruits at Jefferson Barracks, Mo., from which place, in the past, many cases of typhoid fever have been carried, in the persons of recruits, to distant posts, there to become the sources of infection for others, especially the cavalry arm.

In 105 cases, or 60 per cent. of the whole number, the ages of the men attacked by this disease were not over 25 years; in 50 others, or 29 per cent. of the whole, the ages were between 26 and 30; and in but 19 cases, or 11 per cent. of the whole, were the ages over 30. The admission rates per 1,000 men of the ages given were, for those not over 25, 14.63; 26 to 30, 7.10; over 30, 1.97. Dividing the ages into two groups only, the first being composed of men not over 30 years of age, of whom there was an average of 14,220 in service during the year, and the second of men over 30, whose number averaged 9,621, it appears that in the first group typhoid fever occurred in the proportion of 10.90 cases per 1,000 of mean strength of the group, and for the second in the proportion of 1.97 per 1,000. Of the 17 deaths, 15, or 88 per cent. of the whole number, were of men not over 30 years of age, and 2, or 12 per cent., over 30.

In 62 cases, or 36 per cent. of the whole, the patients had been in service less than 1 year; in 32, or 18 per cent., between 1 and 2 years; in 20, or 12 per cent., between 2 and 3 years; in 18, or 10 per cent., between 3 and 4 years; in 16, or 9 per cent., between 4 and 5 years; and in but 26 cases, or 15 per cent., had the patients been in service over 5 years. In other words, in 85 per cent. of all the cases of typhoid fever the persons attacked had been in service not over 5 years. In this connection it should be stated that 45 per cent. of the active strength of the Army had been in service over 5 years. Of the 17 deaths, 16, or 94 per cent., were of men in their first 5 years of service, and 1, or 6 per cent., over 5 years.

Of all the cases recorded as typhoid fever at 41 different military stations, 21 with 1 death were reported at Fort Monroe, Va.; 8 with 3 deaths at Jefferson Barracks, Mo.; 6 with no death at Fort Leavenworth, Kans.; 7 with 2 deaths at Fort Robinson, Nebr.; 30 with no death at Fort Laramie, Wyo.; 6 with 1 death at Fort Hays, Kans.; 6 with 1 death at Fort Lyon, Colo.; 5 with no death at Fort Bliss, Tex.; 6 with no death at Fort Douglas, Utah; 9 with no death at Camp Pilot Butte, Wyo., and 10 with 1 death at Fort Thomas, Ariz. At 30 other posts from 1 to 5 cases were recorded.

It will be seen from the foregoing statement that 51 cases, or 29 per cent. of the whole number, were reported to have occurred at two stations, Fort Monroe, Va., and Fort Laramie, Wyo. It is further noticeable that of these 51 cases only 1 proved fatal, which gives the exceedingly low death rate of a little under 2 per cent. of the cases treated, the average for the Army for the past ten years being 18 per cent. The average duration of treatment in these cases was 46 days for each case at Fort Monroe, and 27 days at Fort Laramie, the former being only 1 day less than the average for the whole Army, but the latter being 20 days less.

Excluding the 51 cases reported at Fort Monroe and Fort Laramie, the remaining 123 cases, reported from 39 other stations, were attended with 13 per cent. of deaths, and the average duration of treatment was 52 days for each case.

These 123 cases would make the admission rate of the Army 5.16, and the death rate .61, the former of these rates being still considerably higher than the corresponding rate for the previous year and the preceding decade, but the latter being lower than either.

At most of the posts at which typhoid fever prevailed unsanitary conditions sufficient to account for its spread were reported, but at very few of them was the origin of the infection fully ascertained.

At Watertown Arsenal, Mass., in September, Surgeon J. C. McKee reported a case of the virulent and unmanageable type of this disease, which rapidly proved fatal. The origin of this case he attributed to the entire want of drainage at the post, the soil having become saturated with excremental filth in consequence.

At David's Island, N. Y., in April, Surgeon J. V. D. Middleton stated that two cases of typhoid fever had occurred during the month, and that both had proved fatal. He remarked:

Extensive ulcerations were found in the intestines, and the immediate cause of death in one case was intestinal hemorrhage. The overcrowded condition of the dormitories may have been the determining cause, although I believe these men brought the germs of the disease to the island with them. Every precaution was taken to disinfect their dejections, clothing, and bedding. No other cases have occurred.

At Fort Monroe, Va., in September, Surgeon J. Brooke reported the existence of a very large number of cases of typhoid fever at that post, and said:

One case occurred in June, 1 in July, 3 in August, and 9 thus far in this month. Most of them have been comparatively mild, and none were fatal. The disease has been confined absolutely to the enlisted men in the barracks. This building has two sources of water supply, one the general post supply, the other from two rain-water cisterns just behind the building. From preference the men have almost invariably drunk of the latter, and no others, except the families of the quartermaster's employés, some 11 in number, have used it for drinking purposes. All other persons drink from the general supply, or from separate cisterns. In view of these facts I recommended that the supply from the cisterns behind the barracks be cut off. This has been done, but sufficient time has not yet elapsed for a positive conclusion to be reached.

One more case occurred in September, 2 in October, 2 in November, and 2 in December.

At Jefferson Barracks, Mo., in February, Surgeon E. McClellan writes:

I have carefully considered the subject of typhoid fever at this depot, and am utterly unable to trace the cases which occur to any local cause, nor am I able to form any links in a chain of connection between cases. The cases seem to me to be absolutely isolated, and due either to the condition of the recruit prior to his arrival at the depot, or to his subsequent exposure to the disease beyond the limits of the military reservation. During the month of February there was a total of 926 enlisted men at the depot, inclusive of the ordnance detachment and general prisoners, who were exposed to similar local causes. Thirty-five cases of diarrhoea occurred in the whole command, with but a single case which presented any symptoms of enteric fever.

In October he adds:

The 4 cases of typhoid fever occurred in the persons of men who had been for some time at the depot; * * * three of these were admitted from A company, and one from B company. It is presumable, from the length of time that each recruit infected with typhoid had been at the depot, that they contracted the disease at, or in the vicinity of, the post. I consider it simply a coincidence that three of these cases came from one company. * * * It is simply impossible to follow recruits at the depot with the scrutiny that can be applied to soldiers in permanent companies and troops. The number of low resorts around the reservation, in Carondelet and Saint Louis, which are frequented by these men, and the impossibility of preventing many of the recruits, who arrive from rendezvous in eastern cities, from visiting such resorts, permits the inference that it is equally as probable that the disease was contracted outside the limits of the reservation as that it owed its origin to sources of infection within these limits.

At Fort Leavenworth, Kans., in November, 5 cases were reported; 1 of the patients was a colored recruit, recently arrived from Jefferson Barracks, Mo., and presumably infected before arrival at the post. No new cases occurred in December.

At Fort Assiniboine, Mont., in October, Assistant Surgeon L. A. LaGarde reported 2 cases. In November he remarked:

After careful investigation of the probable origin of the 2 typhoid fever cases from Company H of the Twentieth Infantry, it is necessary to state that no reasonable conclusion can be offered. * * * It may be here remarked that the only 2 fatal cases of typhoid fever in the history of the post have come from this set of barracks. Acting Assistant Surgeon F. J. Adams, who has been here since September, 1883, reports that, during his residence at the post, by far the greater number of cases has come from this set—the set now occupied by Company H, of the Twentieth Infantry and the band.

At Fort Hays, Kans., in his July report, Surgeon H. M. Cronkhite says:

Owing to a defective drain leading from the kitchen and wash-room * * * typhoid fever broke out in Company A, Eighteenth Infantry. Up to the present time there have been 4 cases, one of which has already proved fatal, in that company. The drain was repaired, and the ground thoroughly disinfected, as soon as the fever appeared.

Two more cases occurred after the date of this report.

At Fort Lyon, Colo., in July, 4 cases of fever with suspicious typhoid symptoms were reported. They were all from the same company, but a careful examination failed to detect the cause of the sickness.

At Fort Robinson, Nebr., in June, 1 death was reported. The disease was said to have been contracted at the recruiting depot at Jefferson Barracks, Mo.

At Fort Laramie, Wyo., in November, Assistant Surgeon L. Brechemin says:

The total number of cases treated to date of this report is 54, with 1 death. Thirty cases occurred in the command, and 24 among the civilians.

He believed the great amount of sickness at this post was due to pollution of the water supply. One mild case, that of a child, was reported in December.

At Fort Bliss, Tex., in September, Assistant Surgeon S. G. Cowdrey, remarked:

Prevailing diseases of the post and vicinity are typhoid and severe remittent fevers. In the town of El Paso the fever is accounted for by the filth of the place, as the sewerage system is not completed yet; but I can not account for the fevers in the post, unless they come from the filthy and scanty water supply.

At Camp Pilot Butte, Wyo., in August, Assistant Surgeon W. Stephenson stated that the 6 cases of typhoid fever that had occurred at the camp were caused by outside influences beyond control of the military authorities, and remarked:

Bitter Creek to the south, and China Town to the north, both being within 100 feet of the camp, are sources of filth diseases because of the indifference of their inhabitants to all sanitary measures in the disposition of excreta, etc. For several weeks during the hottest part of the summer Bitter Creek was a stagnant pool for over half a mile, for which space its banks are inhabited by miners, living in dug-outs, who throw all refuse into the creek. From the fact that the first cases of the fever were on this creek, that an enormous number of cases, in proportion to the population, as compared with the rest of the town, were there, and that the worst epidemic the town has ever known was coincident with the unusual damming up of the creek from dumping coal-slack into it below the town, I am of the opinion that Bitter Creek has been the principal factor in the production of the fever. There is no occasion to question the water supply, as it is brought from a largestream, Green River, where there is no fever. * * * The Chinese to the north of the camp have suffered somewhat from the fever, but not so much as their filthy habits would have led one to suppose.

At Fort Thomas, Ariz., in November, Assistant Surgeon E. R. Morris reported that the diseases most prevalent there were the malarial and typhoid fevers, and that, with regard to these, the record of 1887 was, on the whole, better than that of 1886. He says:

That there is a relatively large amount of sickness at Fort Thomas is apparent from the monthly reports of the medical department, but this circumstance is believed to be beyond the control of the health officer.

A tabular statement showing diseases that occurred among troops at this post during the year ending November 30, 1887, accompanies the report. The post surgeon adds:

* * * The summer climate is indeed singularly unpleasant. Malaise, lassitude, and depression of spirits, in subjects with impressionable nerves, are the rule. This depression is believed to be important as a predisposing cause of by far the most serious disease that is encountered here, viz, typhoid fever.

At Fort Bayard, N. Mex., in July, Assistant Surgeon W. D. Dietz reported that among the cases remaining in hospital from the previous month was one of typhoid fever. The patient was a recruit who had been stationed at Jefferson Barracks, Mo., for three months, and arrived at Fort Bayard on June 20. En route thither, on the 16th, he was first taken sick.

At San Diego Barracks, Cal., in June, a case appeared, the patient being the child of a non-commissioned officer. The origin of the disease was not clear. In July an enlisted man was taken sick with the fever. The post surgeon, Surgeon D. L. Huntington, reported that the case probably originated outside of the garrison, and said:

This affection, as well as typho-malaria fever and diarrhoea, is quite prevalent in the city of San Diego in the neighborhood of the barracks, and is, without doubt, due to want of proper sewerage and drainage.

On the appearance of another case in December he remarked:

The cause of infection was undoubtedly outside of the garrison, as the fever continues to be very prevalent and fatal throughout the city, and is due to improper hygiene and unsanitary conditions.

EPIDEMIC INFLUENZA was charged with 53 admissions, of which it is noticeable that the colored troops furnished only 2 cases, or a ratio of .89 per 1,000 of mean strength, against 51 cases, and an admission rate of 2.36, for the white troops. There were no deaths from this cause.

MEASLES caused 92 admissions during the year, with 3 deaths, all of which were due to intercurrent diseases, double pneumonia in 2 cases, and heart failure in 1. In the tabular summaries which accompany this report these deaths are charged to their immediate causes.

The admission rate for measles was somewhat higher for the colored than for the white troops, being 4.46 for the former, and 3.80 for the latter. The deaths were all of white enlisted men. Forty-one of the cases, or 45 per cent. of the whole number, occurred among recruits at depots; 52, or 57 per cent., among men of less than one year's service; and 62, or 67 per cent., in men not over 25 years of age.

At Jefferson Barracks, Mo., where 21 of the cases and all of the deaths occurred, Surgeon E. McClellan, in February, reporting upon the outbreak of the disease, of which 17 cases had then appeared, said:

The epidemic originated in the arrival at the depot of 3 recruits, 1 from Philadelphia and 2 from Lexington, who were taken with the disease soon after their arrival. In consideration of the number of recruits at depot during the month, the epidemic has been mild.

In a special report in April he notes the admission of 2 more cases among the recruits, and says:

The majority of these cases were complicated with bronchitis, a large number with diarrhoea, and 4 cases with pneumonia; as sequelæ, 1 case of conjunctivitis and 1 case of pulmonary tuberculosis have occurred, while in still 1 other case it is by no means certain that the incipient stage of phthisis pulmonalis is not developing. Among the 21 cases there were 3 deaths, the first of which was that of February 6, in the person of a member of the depot band. This man had been suffering, for some time prior to the outbreak of measles, with aphonia and dyspnoea, which had prevented the performance of duty. He passed safely through the stage of desquamation, but was greatly debilitated, requiring careful nourishment and stimulation. On February 20, when making my evening visit to the wards, I saw him sitting upright in his bed supported by pillows. As I walked toward his bed an attendant said, "I helped him to sit up about half an hour ago, and he went to sleep." I placed my hand upon him and found that he was dead. As the family claimed the remains no autopsy was made. The 2 other deaths occurred in the cases of February 28 and March 16. In both, the death was occasioned by pneumonia of both lungs, and in each case the complication occurred with the fading away of the eruption. * * * The subsidence of the epidemic among the enlisted men was followed by a mild epidemic among children at this depot and the powder depot, 11 cases having already occurred, in all of which convalescence is satisfactorily established.

In addition to the cases mentioned, the disease was quite prevalent during the year in the families of officers and enlisted men, and among other civilian attachés at the different Army posts.

MUMPS caused 68 admissions, of which 10 occurred among colored troops. There were no deaths. Thirty of the cases, or 44 per cent, of the whole number, were furnished by recruits at depots, their admission rate for this cause being 17.96 per 1,000 of mean strength, and that for the whole Army 2.85.

SCARLET FEVER occurred in 2 cases, one at Jefferson Barracks, Mo., in the person of a colored recruit, and the other at Fort Maginnis, Mont., the patient being an enlisted man of a white cavalry regiment; both recovered. The disease was also prevalent during the year among the civilians with the commands at Fort D. A. Russell, Wyo., Fort Robinson, Nebr., Fort Hancock, Tex., Fort Marcy, N. Mex., Fort Bidwell, Cal., Fort Leavenworth, Kans., Fort Porter, N. Y., Fort Ontario, N. Y., Fort Columbus, N. Y., Fort Assiniboine, Mont., Fort Maginnis, Mont.

SMALL-POX caused but 2 admissions, or a rate of .08 per 1,000 of mean strength, against .13 for 1886 and an average of .25 for the previous decade. One case was of the modified form and occurred at Fort McHenry, Md., in the person of an enlisted man (white), who was at once isolated. No additional cases occurred at that post. The other case was that of a colored recruit at Jefferson Barracks, Mo., who had been received from the rendezvous in New York City but a short time before the appearance of the disease.

At Fort Marcy, N. Mex., in January, it was reported that there were cases in the adjoining town of Santa Fé; also at Fort Bayard, N. Mex., in February, that the disease was prevalent in the vicinity of the post, at Silver City. At Fort Canby, Wash., in September, the post surgeon reported that a case of modified small-pox had appeared at that post in the person of a member of the life-saving corps stationed there during the month. The patient probably contracted the disease while on a visit away from the post.

The disease was declared epidemic in the city of San Francisco, Cal., on December 29, but no cases appeared at any of the posts in the vicinity.

With the exception of the case at Fort Canby, the civilian attachés of the Army were entirely free from the disease during the year.

CEREBRO-SPINAL FEVER was recorded in but 1 case, that of a white recruit at Jefferson Barracks, Mo., who died of this disease.

In addition to the cases mentioned above there were 127 admissions, with no deaths, for other diseases of this class, as follows: röteln 27 (16 at Fort Monroe, Va), quinsy 96, chicken-pox 3, and whooping-cough 1; all occurred among white troops, except 2 cases of chicken-pox, 37 of quinsy, and 1 of röteln.

MALARIAL DISEASES.

The admissions for this class of diseases during the year numbered 2,446, the deaths 9, and the discharges 2, the ratios per 1,000 of mean strength being 102.60, .34, and .08, respectively, all of which, except the discharge rate, are lower than the corresponding rates for the previous year. In 1886 the admission rate was 116.71, the death rate .31, and the discharge rate .19; for the previous decade the admission rate was 202.77, and the death-rate .29.

The average duration of treatment for all cases reported during the year was 10.6 days for each; for white troops it was 10.5 days, and for colored 11.4.

The colored troops gave an admission rate (113.84) somewhat higher than that of the white troops (101.43), as well as higher rates of death, and constant non-effectiveness. The greater frequency of occurrence of malarial diseases among the colored troops, as compared with the white, is especially noticeable for the reason that the reverse has been the rule for many years, the annual admission rate of the white troops for these diseases from 1875 to 1885, inclusive, averaging, 206.82, and that of the colored 176.62, per 1,000 men of each race respectively. The death-rate of the colored troops from malarial diseases for 1887 (.41) was in excess of that of the white, and this is in accord with the record of previous years, the average from 1875 to 1885 having been .29 for the white, and .37 for the colored.

During the year 1887 the greatest disproportion between the two races in the rates of occurrence of these diseases was shown by the recruits at depots, the admission rate for the colored recruits being 319.02, and for the white 190.44, and the constant non-effective rate 18.65 for the colored, and 9.13 for the white.

Of the 2,446 recorded cases, 1,068, or 44 per cent. of the whole number, occurred at ages not over 25 years; 714, or 29 per cent., from 26 to 30; and 664, or 27 per cent., over 30. The admission rates were, for those not over 30, 125.32; over 30, 69.02. The constant non-effective rates were, for those not over 30, 3.72; over 30, 7.41, per 1,000 men in each group of ages. Much higher rates were also shown in the first 5 years of service than in any subsequent period, the admission and non-effective rates for those whose service did not exceed 5 years being 128.78 and 3.95, respectively, and for all others 70.24 and 1.80, per 1,000 of each group.

This class of diseases was most prevalent in the region of Central Timbered Plains and Hills, in which 427 cases, with 3 deaths, was recorded during the year, the ratios per 1,000 of mean strength being 326.20 for admissions, and 2.29 for deaths. This region also gave the highest constant non-effective rate, 13.59. The region of the Northern Lakes showed the lowest admission rate, 43.91, and also the lowest non-effective rate, 1.08, except the Appalachian Mountain region which gave a non-effective rate of .36, but as this was based upon the occurrence

of only 4 cases in a mean strength of 65 men it is not considered in making this comparison. The regions showing the greater and least prevalence of these diseases during the past year occupied the same relative positions in 1896.

The posts at which malarial diseases were of most frequent occurrence during the year are as follows, arranged in the order of their respective rates of admission: Little Rock Barracks, Ark., 567.31; Washington Barracks, D. C., 550.56; Fort Sill, Ind. T., 439.01; Jefferson Barracks, Mo., 402.10; Fort Brown, Tex., 348.48; St. Francis Barracks, Fla., 343.75; post of San Antonio, Tex., 312.00; Indianapolis Arsenal, Ind., 296.20. The posts giving the highest ratios of constant non-effectiveness for these diseases are as follows, in the order of their several rates: Jefferson Barracks, Mo., 22.59; Fort Gibson, Ind. T., 15.37; Fort Thomas, Ariz., 14.27; Fort Sill, Ind. T., 11.72; Fort Ringgold, Tex., 10.73; Washington Barracks, D. C., 9.26; St. Francis Barracks, Fla., 8.10.

Jefferson Barracks, Mo., which in 1896 gave for malarial diseases an admission rate of 418.71, the highest of the Army, and from 1883 to 1896, inclusive, an average annual rate of 704.56 per 1,000 of mean strength, in 1897 showed a marked improvement over previous years, its admission rate having fallen to 402.10, which is 43 per cent. lower than the average for the previous 4 years.

INTERMITTENT FEVER was recorded as the cause of admission in 1,944 cases, or 79 per cent. of all admissions for malarial diseases; there were no deaths or discharges. The admission rate of the colored troops was 92.41, of the white 90.41, and of the whole Army 81.54, per 1,000 of mean strength, against 86.59 for 1896, and 177.79 for the previous decade. The average duration of treatment was 7.6 days for each case.

The posts giving the highest admission rates for this disease were: Washington Barracks, D. C., 550.56; Little Rock Barracks, Ark., 560.00; Fort Sill, Ind. T., 439.72; Jefferson Barracks, Mo., 357.23; Fort Brown, Tex., 340.91; San Antonio (post), Tex., 234.67. The posts giving the highest non-effective rates were: Jefferson Barracks, Mo., 14.36; Washington Barracks, D. C., 8.23; Fort Sill, Ind. T., 7.36; Fort Brown, Tex., 6.89; Fort Grant, Ariz., 6.04; Camp Pena Colorado, Tex., 5.29; Little Rock Barracks, Ark., 5.27.

Five cases of PERNICIOUS INTERMITTENT FEVER, with no deaths, were reported, 3 at Little Rock Barracks, Ark., and 1 each at Forts Schuyler, N. Y., and Selden, N. Mex.

REMITTENT FEVER caused 337 admissions, 9 deaths, and no discharges, or 14 per cent. of all admissions charged to malarial diseases, and all of the deaths. The colored troops gave a lower admission rate for remittent fever (12.95) than the white (14.26), but their death-rate was higher, being .41 against .33 for the white. The rate for the whole Army was .34; for 1896 it was .23, and for the previous decade .22.

The posts from which the greatest number of cases of remittent fever were reported during the year are Fort Leavenworth, Kans., which furnished 29 cases; Jefferson Barracks, Mo., 27; Fort Thomas, Ariz., 25; Saint Francis Barracks, Fla., 15; Fort Sill, Ind. T., 15; Fort D. A. Russell, Wyo., 14. Of the deaths, 3 occurred at Jefferson Barracks, Mo.; 2 at Fort McIntosh, Tex.; and 1 each at Forts Brown, Tex., Sill, Ind. T., Myer, Va., and Walla Walla, Wash. The average duration of treatment was 26.9 days for each case of remittent fever.

CONTINUED MALARIAL FEVER was recorded in 20 cases, and MALARIAL CACHEXIA in 16; there were no deaths from either of these causes, and but 2 discharges, the total for the group, both of which were for malarial cachexia.

TYPHO-MALARIAL FEVER (SO CALLED).

This diagnosis was given in 15 cases, of which 4 proved fatal, the admission rate being .63 per 1,000 of mean strength, against 1.70 for 1886, and 2.78 for the previous decade. The colored troops furnished 2 of the cases and 1 death. No reports of autopsies were received, and no statement was made in any of the fatal cases that the pathological lesions had been sought for *post mortem*. Ten of the persons attacked were under 30 years of age, and 12 were in their first five years of service.

The average duration of treatment for all cases recorded as typho-malarial fever was 54 days, 7 days longer than the average treatment of typhoid fever for the whole Army, but only 2 days longer than the average for the Army, excluding the 30 cases reported as typhoid fever at Fort Laramie, the average duration of which was only 20 days.

DIARRHOEAL DISEASES.

The total number of cases recorded under this head was 3,307, the deaths 8, and the discharges 11. The ratio of admissions per 1,000 of mean strength was 138.71, of deaths .30, and of discharges .42, all of which differ but little from the corresponding ratios for the previous year, which were 146.36, .31, and .19, respectively. For the previous decade the admission rate was 215.73, and the death rate .37.

The admission rate of the white troops (139.67) was higher than that of the colored (129.46); that of the enlisted men of engineers (544.24) was greatly in excess of that shown by enlisted men in any other branch of the service, and chargeable, undoubtedly, to the unsanitary conditions prevailing at the engineer's depot at Willets Point N. Y.; that of colored recruits at depots (306.75) was higher than that of white recruits (166.55); and that of the first year of service (229.09) was higher than the average for all over 1 year (122.33).

The constant non-effective rate for the whole Army was 2.06 per 1,000 of mean strength; for recruits at depots 3.57 (white 3.23, colored 6.66); first year of service 3.51; all over 1 year 1.81; and for the enlisted men of engineers 6.90, showing that the disproportionate frequency of occurrence of diarrhoeal diseases among these men was accompanied by a corresponding constant impairment of force occasioned thereby.

Excluding the Appalachian Mountain region with its admission rate of 279.41, for reasons heretofore stated, this class of diseases was most prevalent in the region of Central Timbered Plains and Hills, in which 298 cases were recorded during the year with no deaths, the ratio of admissions per 1,000 of mean strength being 227.65. This region also gave the highest constant non-effective rate, 4.80. The region of the Pacific Coast gave the lowest admission rate, and the Northern Lakes the lowest non-effective rate. The relative frequency of occurrence of these diseases was substantially the same in 1866 as during the past year; and the coincidence between malarial and diarrhoeal diseases in the region of their greatest prevalence for both these years is also noticeable.

The posts at which diarrhoeal diseases were most prevalent during the year, arranged in the order of their several admission rates, are as follows: Fort Myer, Va., 562.51; Willets Point, N. Y., 513.16; Fort Sidney, Nebr., 422.68; Watervliet Arsenal, N. Y., 375.00; Fort Riley, Kans., 342.68; Washington Barracks, D. C., 333.33; Jefferson Barracks, Mo., 325.87; San Carlos, Ariz., 321.10; Rock Island Arsenal, Ill., 310.34.

The highest non-effective rates were shown as follows: Fort Riley, Kans., 11.16; Fort McDowell, Ariz., 8.27; Jefferson Barracks, Mo., 7.52; Willets Point, N. Y., 6.65; Fort Grant, Ariz., 6.49; Mount Vernon Barracks, Ala., 6.42; Fort Davis, Tex., 6.32.

As in the case of malarial diseases, Jefferson Barracks, Mo., shows a decided change for the better in respect of the occurrence of diarrhoeal diseases, its admission rate for the latter in 1886 being 656.92 per 1,000 of mean strength, considerably higher than that of any other military post, and its average annual rate from 1883 to 1886 being 620.59; while for 1887 its admission rate was 325.87, or 47 per cent. less than the average for the past four years.

DIARRHOEA caused 2,897 admissions, or 88 per cent. of the total for its class, 2 deaths and 8 discharges, the rates being 121.51, .08, and .30, per 1,000 of mean strength. For 1886 the admission and death rates were 129.69, and .08, and for the previous decade 190.56, and .11. The admission rate of the colored troops for the past year was 116.96, and of the white 121.58.

Of the acute form 2,838 cases were recorded, with 1 death, and of the chronic, 59 cases and 1 death. The average duration of treatment was 3.9 days for each case of the acute disease, and 30.2 for the chronic.

DYSENTERY was reported in 217 cases, of which 4 were fatal, and 3 necessitated discharges from the service. The ratio of admissions was 9.10, deaths .15, and discharges .11. For the previous year the admission and death rates for this disease were 10.18 and .23, per 1,000 of mean strength, respectively, and for the preceding decade 18.79 and .25. The admission rate of the white troops for the past year was 9.12, and of the colored 8.93.

There were 180 cases of the acute disease with 4 deaths and no discharges, and 37 cases of the chronic form, with no deaths and 3 discharges.

The average duration of treatment was 14.4 days for the acute form, 45.6 for the chronic, and 19.7 for all cases.

The posts reporting the greatest number of admissions for dysentery during the year were Fort Riley, Kans., 21 cases; Fort Clark, Tex., 19; Fort Reno, Ind. T., 12; Fort Supply, Ind. T., 11; San Carlos, Ariz., 10; Willets Point, N. Y., 9; Fort Davis, Tex., 9; Fort Grant, Ariz., 7; and Fort Lowell, Ariz., 6.

VENEREAL DISEASES.

For this order of diseases there were 1,773 admissions during the year, no deaths, and 104 discharges, giving ratios of 74.37 for the first, and 3.94 for the last, per 1,000 of mean strength, against 71.91 and 3.52 for 1886, and an admission rate of 90.32 for the previous decade. The aggregate loss of time from these causes was 44,575 days, and the constant non-effective rate was 5.12 per 1,000 of mean strength; this rate for 1886 was 4.83.

The average duration of treatment was 25 days for each case. The colored troops gave an admission rate for venereal diseases (95.98) which was higher than that of the white (72.13), and they also suffered a greater proportionate impairment of force therefrom, the constant non-effective rates of the two races being, colored 6.92, white 4.94, per 1,000 of mean strength. Recruits at depots gave the highest admission rate for these diseases, 182.63; the cavalry stood second with a rate of 91.02;

engineers third, 78.77; artillery fourth, 64.13; and the infantry fifth, 60.92. Of the various nationalities represented in the Army, natives of the United States gave the highest admission rate, 85.88; that of the Irish was 55.91; of the Germans, 54.85.

The posts showing the highest admission rates for venereal diseases are as follows, in the order of the relative frequency of occurrence of these diseases: Columbus Barracks, Ohio, 388.47; Fort Grant, Ariz., 276.38; Fort Lowell, Ariz., 251.75; Fort Gaston, Cal., 222.23. The lowest of these rates is about three times the average for the whole Army.

GONORRHOEA AND RESULTS caused 775 admissions, or 44 per cent. of the total for venereal diseases, and 7 discharges; SYPHILIS, 548 admissions, or 31 per cent., and 95 discharges; CHANCROID, 210 admissions, or 12 per cent., and 1 discharge.

The colored troops furnished 11 of the discharges for syphilis, and none for the other diseases mentioned.

The average duration of treatment for gonorrhoea was 20 days—21 for the white, and 16 for the colored troops; syphilis 33 days—white 33, colored 30; chancroid 22 days—white 20, colored 31.

DIETIC DISEASES.

ALCOHOLISM AND ITS RESULTS.—Under this head have been grouped all cases taken upon sick report, in which the disability, whether slight or severe, acute or chronic, was directly due to the ingestion of alcohol in some form. But as was stated in the last annual report, the figures given do not by any means represent the total impairment of force attributable to this cause, but only such portion of it as was brought directly to the attention of medical officers, and necessitated their excusing men from some portion of their military duty.

The aggregate of the admissions charged to alcoholism was 1,104, or 98 per cent. of the total for the dietic group of diseases, the deaths 4, and the discharges 4, giving ratios of 46.31, .15, and .15 respectively, per 1,000 of mean strength. These rates for 1886 were 47.09, .04, and .08, and the admission and death rates for the previous decade 61.72, and .20.

The remarkably low admission rate, which the colored troops have always given for disabilities resulting from the use of intoxicants, continues to be a noticeable feature of the reports for the past year, during which there occurred but 5 admissions of colored soldiers for causes of this nature, or a rate of 2.23 per 1,000 of mean strength, while that of the white troops for the same period was 50.88. For the previous year the ratios were 4.67 for the colored, and 50.21 for the white; and for the 20 years from 1866 to 1885, inclusive, the average rates were 2.18 for the colored, and 54.04 for the white; all of which goes to show that, however much the colored soldier may be addicted to the use of alcohol in its various forms, the sick list of the Army is not appreciably affected thereby. In the case of the white soldier the reverse of this is true, as is shown by the fact that for more than 20 years an average of 2.7 per cent. of all the cases of disease and injury reported among the white troops has been directly due to alcoholism or its results.

Of the different nationalities represented in the Army, the French gave the highest admission rate (188.68) during the year for these causes, and others in the following order: Irish, 98.62; Scotch, 78; English, 73.50; *United States* (white) 44.34; Canadian, 36.95; Swiss, 28.04; German,

27.43. Nearly the same relative positions were occupied in respect of the constant impairment of force.

The posts at which the greatest number of cases occurred during the year, arranged in the order of their several admission rates, are as follows: Fort Sidney, Nebr., 211.34; St. Francis Barracks, Fla., 197.92; Fort Gaston, Cal., 194.44; Willets Point, N. Y., 171.05; Jackson Barracks, La., 166.67; Fort Missoula, Mont., 156.63; Camp Del Rio, Tex., 152.54; Fort Ringgold, Tex., 142.86.

The posts at which the greatest impairment of force was suffered, are as follows, arranged in the order of the several ratios of constant non-effectiveness: Camp Pilot Butte, Wyo., 2.42; Fort Sidney, Nebr., 1.77; Fort Union, N. Mex., 1.75; St. Francis Barracks, Fla., 1.68; Fort Ringgold, Tex., 1.67; Willets Point, N. Y., 1.62.

CONSTITUTIONAL DISEASES.

The admissions for this group of diseases during the year numbered 1,018, the deaths 6, and the discharges 73, giving ratios of 42.70, .23, and 2.77, per 1,000 of mean strength, against 45.94, .46, and 2.41 for 1886. The average duration of treatment for all cases was 25.6 days; 26.8 for the white troops, and 19.5 for the colored.

The colored troops gave an admission rate of 75.45, a death-rate of .82, and a discharge rate of 4.53, all of which are considerably higher than the corresponding rates of the white troops, which were 39.30, .17, and 2.59, respectively. A similar disproportion between the two races is shown in the degree of impairment of force, the constant non-effective rate being 4.03 for the colored, and 2.88 for the white.

The frequency of occurrence of these diseases increased with age, and, to a less degree, with length of service, the admission rates being 34.67 for men not over 30, and 54.57 for all over 30; for the first five years of service 38.24; all over that 49.33.

The region of Eastern Timbered Plains and Hills gave the highest admission rate, 61.07, and (excluding the Appalachian), the Cordilleras the next, 55.02; the Northern Lakes gave the lowest, 19.88; and the Atlantic Coast the next, 28.88.

ACUTE ARTICULAR RHEUMATISM (RHEUMATIC FEVER) caused 92 admissions, 1 death, and 4 discharges; of these, 20 of the cases occurred among the colored troops; the death, and all the discharges, among white troops. The immediate cause of death in the fatal case was acute pericarditis. The admission rate of the whole Army for this disease was 3.86 per 1,000 of mean strength and the death-rate .04, against 3.73 and .08 for the previous year. The admission rate of the colored troops was 8.93, or more than double that of the white, which was 3.33. The average duration of treatment was 38.6 days; 42.2 for the white troops and 25.5 for the colored.

Excluding the Appalachian Mountain region, which furnished 1 case in a mean strength of 68 men, the region of Central Timbered Plains and Hills showed the greatest prevalence of acute rheumatism, furnishing 17 cases, or an admission rate of 12.99 per 1,000 of mean strength. The southern group of posts in the region of the Great Plains came next with 12 cases and an admission rate of 6.90. No case was reported in the region of the Great Lakes, and but 1 in that of the Pacific Coast.

CHRONIC ARTICULAR RHEUMATISM was recorded as the cause of admission in 841 cases, with no deaths and 55 discharges. The ratio of admissions was 35.27, for the previous year it was 38.01.

The colored troops furnished 130 of the cases and 6 of the discharges,

giving an admission rate of 58.04 per 1,000 of mean strength, against 32.91 for the white troops. The ratio of discharges was about the same for both races, being 2.05 for the white, and 2.47 for the colored; for the whole Army it was 2.09. The duration of treatment averaged 23.6 days for each case; 24.7 for the white troops, and 17.4 for the colored.

This disease was most prevalent in the northern group of posts in the region of the Cordilleras, and in the region of Eastern Timbered Plains and Hills, their respective admission rates being 59.49 and 54.53, per 1,000 of mean strength. The region of the Gulf Coast stood third with a rate of 50.00. The northern group of posts in the region of the Prairies gave the lowest rate, 11.12, and the Central Timbered Plains and Hills the next, 15.28.

PARASITIC DISEASES.

Of this group of diseases 78 cases, with no deaths or discharges, were reported, and it is noticeable that all the cases occurred among white troops. There were 32 admissions for SCABIES, 19 of which occurred among recruits at depots, and 42 for TÆNIA. Of the latter, 21 occurred in the region of the Great Plains, and 10 in the region of the Prairies. Fort Clark, Tex., furnished 7 cases, and Fort McIntosh, Tex., 4. No other posts reported more than 2 cases. The average duration of treatment for scabies was 5 days, and for tænia 11 days, for each case.

DISEASES OF THE NERVOUS SYSTEM.

Of this group EPILEPSY caused 52 admissions, with no deaths, and 25 discharges; INSANITY AND MENTAL DEBILITY, 50 admissions, 2 deaths, and 44 discharges; and HEADACHE AND NEURALGIA, 1,356 admissions, no deaths, and 12 discharges. For insanity and mental debility the colored troops gave a lower admission rate (1.34) than that of the white (2.18); for epilepsy the rates were about the same (2.23 for the former and 2.18 for the latter); but for headache and neuralgia the rate of the colored troops (80.80) was much higher than that of the white (54.40). In 19 of the discharges for epilepsy it was noted that the disease originated prior to enlistment.

For all diseases of the nervous system the admission rate of the colored troops was 91.52, of the white 66.43, and of the whole Army 68.79. The total number of cases was 1,640, of deaths 17, and of discharges 111. For the previous year the total admission rate was 75.60, the death-rate .61, and the discharge rate 3.30; for the preceding decade the admission and death rates were 116.46 and .59.

This group of diseases was most prevalent in the middle and northern groups of posts in the region of the Great Plains, and in the middle group of the Cordilleras, the admission rate being 77.95, 87.13, and 95.59, per 1,000 of mean strength in each group, respectively. The frequency of occurrence of cases of neuralgia in these groups is especially noticeable, their admission rates for this disease being 38.42, 41.13, and 44.55, all of which are considerably higher than the average for the whole Army, which was 32.09.

DISEASES OF THE RESPIRATORY SYSTEM.

There were charged to this class of diseases during the year 2,735 admissions, 42 deaths, and 73 discharges, the ratios per 1,000 of mean

strength being 114.72, 1.50, and 2.77, respectively. In 1886 the ratio of admissions was 142.33, of deaths 1.30, and of discharges 2.57; for the previous decade the admission and death rates were 210.29 and 1.05, respectively.

The average duration of treatment of all cases reported during the year was 10.8 days; it was the same for both the white and colored troops.

The colored troops gave an admission rate of 154.46, a death-rate of 3.29, and a discharge rate of 3.71, all of which were considerably higher than the corresponding rates of the white troops, which were 110.60, 1.42, and 2.67, respectively. About the same disproportion was shown in the degree of impairment of force, the constant non-effective rates being 4.53 for the colored and 3.28 for the white, per 1,000 of mean strength.

The cavalry gave an admission rate of 100.81, the artillery 119.70, the infantry 121.45, and the engineers 319.47. Age, length of service, and nativity do not appear to have influenced the prevalence of these diseases to any noticeable extent.

Diseases of the respiratory system were most prevalent during the year in the region of Eastern Timbered Plains and Hills, in which 174 cases were recorded, with 3 deaths, the ratios being 189.75 and 3.27 per 1,000 of mean strength. The region of Central Timbered Plains and Hills gave the highest constant non-effective rate, 4.97. The region of the Gulf Coast showed the lowest admission rate, 66.67, and the Northern Lakes the lowest non-effective rate, 1.75 (excluding the Appalachian Mountain region). The death-rate was highest, 5.35, in the region of Central Timbered Plains and Hills. No deaths from diseases of the respiratory system were reported in the region of the Gulf Coast, and in the regions of the Pacific Coast, Northern Lakes, and Atlantic Coast the death-rates were only .62, .83, and .88, respectively.

BRONCHITIS was recorded as the cause of admission in 1,643 cases, or 60 per cent. of all admissions for diseases of the respiratory system, and as the cause of 1 death and 15 discharges. The ratio of admissions was 68.91, and of deaths .04, against 45.82 and .08 for 1886, and an admission rate of 64.77 and a death-rate of .13 for the previous decade. The admission rate of the colored troops was 87.50 per 1,000 of mean strength, and of the white troops 66.99. The average duration of treatment was 7.7 days for each case, 7.7 for the white and 7.6 for the colored soldier.

The region of Eastern Timbered Plains and Hills gave the highest admission rate for this disease, 118.87, and the Atlantic Coast the next, 103.28; the Gulf Coast gave the lowest, 13.33, and the Northern Lakes the next, 52.20.

The posts showing the highest admission rates for bronchitis during the year were Willets Point, N. Y., 336.84; Fort Sidney, Nebr., 293.81; San Diego Barracks, Cal., 274.51; Kennebec Arsenal, Me., 250.00; Fort McHenry, Md., 230.77; Fort Selden, N. Mex., 209.30. The highest non-effective rates were: Fort McHenry, Md., 8.99; Fort McKinney, Wyo., 6.22; Fort Sherman, Wyo., 5.03; Willets Point, N. Y., 4.69; San Diego Barracks, Cal., 3.87; Fort Keogh, Mont., 3.86; Fort Lewis, Colo., 3.50; Fort Sully, Dak., 3.07; Fort Selden, N. Mex., 3.06.

PULMONARY PHTHISIS caused 81 admissions, 13 deaths, and 48 discharges. The admission rate of the colored troops was 6.25 per 1,000 of mean strength, of the white 3.10, and of the whole Army 3.40; the death-rates were, white .46, colored .82, whole Army, .49; the discharge rates, white 1.71, colored 2.88, whole Army 1.82; the average duration of treatment was 71.4 days for the white, 83.9 for the colored, and 73.5 for

all cases. For the previous year the ratio of admissions for the Army was 3.52 (white 3.64, colored 2.33); of deaths .50 (white .55, colored .00); of discharges 2.18 (white 2.19, colored 2.12). For the preceding decade the admission rate was 3.77 (white 3.77, colored 3.83); and the death rate .63 (white .58, colored 1.09).

The region of the Gulf Coast gave the highest admission rate for this disease (10.00), and, except the Appalachian region in which no cases were reported, the region of the Prairies gave the lowest (1.48). The posts from which the greatest number of cases were reported were: Fort Meade, Dak., 9; Jefferson Barracks, Mo., 5; Fort Lewis, Colo., 4; West Point, N. Y., 3; Fort Barrancas, Fla., 3.

PNEUMONIA was charged with 99 cases, of which 26, or 26 per cent., proved fatal; there were no discharges. The admission rate of the colored troops was 5.80, of the white 398, and of the whole Army 4.15, per 1,000 of mean strength. The death-rates were, colored 2.06, white .88, whole Army .99. The average duration of treatment was 36.9 days for the white, 26.1 for the colored, and 35.5 for all cases. During the previous year the admission and death rates of the Army for this disease were 2.97 and .61; for the preceding decade, 4.76, and .80.

Excluding the Appalachian region, the Central Timbered Plains and Hills gave the highest admission rate, 17.57, and the Eastern Timbered Plains and Hills the next, 6.54; the Gulf Coast the lowest, 0, and the Northern Lakes the next, .83. Jefferson Barracks, Mo., furnished 16 cases with 5 deaths; David's Island, N. Y., 7, with no deaths; Fort Adams, R. I., 5, with no deaths; Fort Leavenworth, Kans., 5, with 1 death; Fort Lewis, Colo., 4, with 1 death.

Of the 99 cases of pneumonia reported during the year, the variety was not stated in 79; it was reported as croupous, or lobar, in 15, and catarrhal, or lobular, in 5. The right lung was the seat of the disease in 46 cases, the left in 28, and in 19 both lungs were involved; in 6 cases the location was not stated. The right lower lobe was affected in 23 cases, the right lower and middle lobes in 4, the entire right lung in 3, the left lower lobe in 17, and the entire left lung in 3; in 24 cases, 16 of the right side and 8 of the left, the lobe or lobes involved were not specified.

PLEURISY caused 59 admissions, with no deaths and 2 discharges. The left side was affected in 27 cases, the right in 24, both sides in 2, and in 6 cases the location of the disease was not stated.

The admission rate of the colored troops was 4.46, of the white 2.27, and of the whole Army 2.47, per 1,000 of mean strength.

The admission and death rates for the previous year were 2.97 and .08; for the previous decade 4.82 and .03.

The discharge rate was .08 for the Army. The average duration of treatment was 20.2 days for all cases; 20.5 for the white and 19.0 for the colored.

The Eastern Timbered Plains and Hills gave the highest admission rate, 4.36, the Central Timbered Plains and Hills the next, 3.82, and the Atlantic Coast the lowest, 1.31.

DISEASES OF THE CIRCULATORY SYSTEM.

Of the 179 admissions recorded under this head, ANGINA PECTORIS caused 11, with no deaths and 2 discharges; CARDIAC IRRITABILITY 70, no deaths, 6 discharges; VALVULAR DISEASE OF THE HEART, 27, 8 deaths, 17 discharges; ANEURISM 6, no deaths, 4 discharges; and VARICOSE VEINS 19, no deaths, 4 discharges.

Very little difference existed between the white and colored troops in their rates of admission for this class of diseases, the former giving a rate of 7.64 per 1,000 of mean strength, and the latter 6.25. The average duration of treatment was 37.8 days for the white, 27 for the colored, and 36.9 for all cases.

The total ratio of admissions for diseases of the circulatory system during the year was 7.51, of deaths .64, and of discharges 1.71; for 1886 the rates were 8.74, .83, and 2.03; and for the previous decade the admission and death rates were 7.60 and .61.

The region of the Pacific Coast gave the highest admission rate, 9.26, and the Prairies next, 9.15; the Gulf Coast gave the lowest (except the Appalachian), 3.33, and the Atlantic Coast next, 3.50.

DISEASES OF THE DIGESTIVE SYSTEM.

The admissions for this class of diseases numbered 3,597, the deaths 11, and the discharges 45, the ratios per 1,000 of mean strength being 150.87, .42, and 1.71; those for 1886 were 162.57, .46, and 1.72; for the previous decade the admission rate was 183.09, and the death-rate .59. The average duration of treatment was 7.8 days for each case, 8.1 for the white, and 5.4 for the colored. The colored troops gave higher admission and death rates (178.57 and .82) than the white (148.00 and .38), but the discharge rate of the white troops (1.84) was higher than that of the colored (.41). These diseases were most prevalent among the engineers, who gave an admission rate of 277.90 per 1,000 of mean strength; recruits at depots came next, with a rate of 192.22; in the rates of other branches of the service, and among men of different ages, lengths of service and nativities, comparatively little disproportion existed.

The region of the Atlantic Coast gave the highest admission rate for diseases of the digestive system, 182.49, and the Central Timbered Plains and Hills the next, 181.05; the Gulf Coast the lowest, 106.67, and the Pacific Coast the next, 106.79. The Central Timbered Plains and Hills gave the highest non-effective rate, 4.35, and the Northern Lakes the lowest, 1.91.

DYSPEPSIA, COLIC, and CONSTIPATION caused 1,281 admissions, and 3 discharges; TONSILITIS 859 admissions and 1 discharge; PHARYNGITIS and SORE THROAT, 484 admissions; DISEASES OF THE LIVER AND GALL BLADDER, 95 admissions, 7 deaths, and 2 discharges; HERNIA 58 admissions and 28 discharges. For the last-mentioned cause it is noticeable that but one of the admissions and none of the discharges occurred among colored troops.

For the several orders of diseases not previously mentioned the number of cases, deaths, and discharges reported, and the ratio of admissions per 1,000 of mean strength, are as follows: SEPTIC DISEASES, 53 cases, 5 deaths (3 for erysipelas), and 1 discharge; admission rates, white 2.27, colored 1.79, total 2.22: ZOÖGENOUS DISEASES, 598 cases (539 vaccina), no deaths, or discharges; admission rates, white 24.95, colored 26.34, total 25.08: DEVELOPMENTAL DISEASES, 12 admissions to sick report, 1 death, and 22 discharges; admission rates, white .51, colored .45, total .50: DISEASES OF THE EYE, 543 cases (360 conjunctivitis), no deaths, and 30 discharges; admission rates, white 22.27, colored 27.68, total 22.78: DISEASES OF THE EAR, 155 cases, no deaths, and 12 discharges; admission rates, white 6.90, colored 2.68, total 6.50: DISEASES OF THE NOSE, 42 cases, no deaths, and 4 discharges; admission rates, white 1.76, colored 1.79, total 1.73: DISEASES OF THE LYMPHATIC

SYSTEM AND DUCTLESS GLANDS, 158 cases (adenitis 143), no deaths, and 2 discharges; admission rates, white 6.39, colored 8.93, total 6.63: DISEASES OF THE GENITO-URINARY SYSTEM, 413 cases (acute and chronic nephritis 30, cystitis 76, urethral stricture 90, non-venereal orchitis 82), 6 deaths, and 42 discharges; admission rates, white 16.94, colored 20.98, total 17.32: DISEASES OF THE LOCOMOTOR SYSTEM, 1,237 cases (myalgia and muscular rheumatism 1,097), no deaths, and 58 discharges; admission rates, white 51.34, colored 57.14, total 51.88: DISEASES OF THE INTEGUMENTARY SYSTEM, 1,894 cases (abscesses, boils, carbuncles, ulcers, and whitlows, 1,256), no deaths, and 5 discharges; admission rates, white 81.85, colored 56.25, total 79.44: UNCLASSIFIED DISEASES 349 cases (simple continued or ephemeral fever 216), 1 death, and 3 discharges; admission rates, white 15.42, colored 7.14, total 14.64.

INJURIES.

Out of a total of 29,727 admissions to sick report for all causes during the year, 5,839, or 19.6 per cent., of these admissions were charged to injuries of various kinds. The deaths numbered 65, and the discharges 66, or 30.4 and 9.2 per cent., respectively, of all deaths and discharges. The ratio of admissions, per 1,000 of mean strength, was 244.91; of constant non-effectiveness 8.68; of discharges, 2.50; and of deaths, 2.47. The average duration of treatment was 12.9 days for each case.

The admission rate of the Army for injuries was higher during the year 1887 than for the previous year, or the preceding decade, being 244.91 per 1,000 of mean strength, against 226 for 1886, and 243.64 for the decade. This rate is also very much higher than that of any foreign army whose health reports are accessible, but no deductions of value can be made from such a comparison, because of the wide differences which exist in the methods of recording and reporting admissions in the various armies. Deaths, and discharges for disability, however, are recorded with greater uniformity in all armies, and can be taken as a much more accurate measure of the losses sustained, although they only indicate approximately the degree of constant impairment of force due to any given cause.

Using, then, the ratios of death and discharge as a basis of comparison, it appears that the Army of the United States suffered, during the year 1887, a proportionate loss by deaths from injuries greater than that shown by the latest accessible reports of any of the foreign armies mentioned below, and a loss by discharges for disabilities originating in injuries greater than that of any of those armies except the Austrian. The ratios of deaths per 1,000 of mean strength were as follows: *United States*, 2.47; *Austria*, 1.94; *Great Britain*, 1.35; *Prussia and Württemberg*, 1.18; *Italy*, .83; *France*, .78; *Belgium*, .74. The discharge rates for the same periods were: *Austria*, 2.94; *United States*, 2.50; *Great Britain*, 1.30; *France*, 1.26; *Prussia and Württemberg*, .65; *Belgium*, .34; *Italy*, .21. The very low discharge rates of the Belgian and Italian armies are mainly due to the fact that in these armies it is customary to send to their homes, on indefinite furlough, large numbers of disabled men, who, in other armies, would be entirely discharged from the service.

Injuries were of much more frequent occurrence, proportionately, in the cavalry arm of the service than in either the infantry or artillery, the rates of the three arms being, respectively, 324, 236, and 221 per 1,000 of mean strength. The degree of impairment of force due to these

causes was also greater in the cavalry than in either of the other arms, the number of men constantly non-effective on account of injuries averaging, per 1,000 of mean strength, 11.89 for the cavalry, 8.42 for the infantry, and 7.65 for the artillery.

Of all the admissions for injury, by far the largest part was caused by contusions, sprains, and muscular strains, 3,655 cases of this nature alone having been reported during the year: but that these cases were comparatively unimportant is shown by the fact that, although they amounted to 63 per cent. of all cases classified as injuries, they were only chargeable with 47 per cent. of the total impairment of force attributable thereto, with none of the deaths, and with but 11 per cent. of the discharges.

FROST-BITE was recorded 107 times, with no deaths and 1 discharge. Two deaths from GENERAL FREEZING occurred, 1 at Fort Sisseton, Dak., and the other at Fort Du Chesne, Utah. HEAT-STROKE caused 45 admissions without death or discharge. For ABRASIONS, BLISTERS, BURNS and SCALDS there were 348 admissions with 1 death and 2 discharges.

Fractures, not gunshot, gave a total of 159 cases, 1 death and 11 discharges; and DISLOCATIONS, 56 cases, no deaths, and 2 discharges. INCISED, LACERATED, CONTUSED, AND PUNCTURED WOUNDS caused 1,175 admissions, 2 deaths and 3 discharges.

SHOT-WOUNDS.—The admissions to sick report during the year for injuries of this character numbered 110, with 7 deaths and 14 discharges. In addition there were 19 cases in which death occurred instantaneously, or so soon after the receipt of the injury that they were not taken upon sick report as cases treated. The whole number of casualties of this class, therefore, was 129, of which 3, with 2 deaths, occurred in action (with hostile Indians); 1, not fatal, was caused by the premature discharge of a cannon while firing a salute; 21, with no deaths, by accidents connected with the reloading of cartridges; 20, with 2 deaths, by accidents at target practice; 8, with no deaths, by accidents while hunting; 15, with no deaths, by other accidents; 25, with 8 deaths, were caused by personal encounters; in 16 cases, with 14 deaths, the wounds were self-inflicted with suicidal intent; in 19 cases, with no deaths, they were self-inflicted accidentally; and in 1 case, not fatal, the wound was self-inflicted by a malingerer.

Sixteen deaths by DROWNING were reported. Of these 1 was suicidal; in 7 cases the cause was not ascertained; the remainder were all due to accidents, occurring while fishing in 2 instances, bathing 3, and boating 3.

For injuries not specially mentioned above there were 184 admissions, 14 deaths and 26 discharges. Of the deaths, 4 were caused by POISONING, 1 by SUFFOCATION, 3 by CONCUSSION OF THE BRAIN, and 6 by CRUSHING or other GENERAL INJURIES.

The SUICIDES in the Army during the year numbered 19, giving a ratio of .72 per 1,000 of mean strength. Of the deaths from this cause 12 occurred in the infantry arm of the service, 6 in the cavalry, and 1 in the artillery. Only 1 case was that of an officer, a lieutenant of infantry.

The suicide rates for the various armies, whose reports are accessible, are as follows: Austria, 1.49; Prussia and Württemberg (enlisted men only), .79; *United States*, .72; Great Britain (enlisted men only), .44; Italy, .42; France, .41; Belgium, .38.

Drowning was the mode of death selected in 1 instance, poisoning in 2, cutting the throat in 1, severing the radial arteries in 1, and the use

of fire-arms in 14. Morbid despondency was assigned as the cause in 2 cases, jealousy 2, suicidal mania 1, losses by gambling 2, excessive drinking 10, and in 2 cases no cause could be ascertained.

The nativities were given as *United States* 8 (1 colored), English 2, Canadian 1, Polish 1, Swiss 1, German 2, Irish 3, and 1 not given.

The ages were twenty-five years in 1 case, twenty-seven in 2, twenty-eight in 1, thirty in 1, thirty-one in 3, thirty-five in 2, thirty-eight in 2, forty in 2, forty-one in 1, forty-four in 1, and in 3 cases the ages were not stated.

The month showing the greatest number of suicides (6) was November. Three occurred in February, 2 each in January, March, April, August, and September, and none in the remaining months of the year. Three cases were reported at Fort Walla Walla, Wash., and 2 each at Fort Wayne, Mich., Fort Leavenworth, Kans., and Fort Clark, Tex.; no other posts showed more than 1 case each.

In addition to the foregoing there were 2 attempted suicides without fatal results. One of these also occurred at Fort Walla Walla, making 4 suicidal attempts with 3 deaths at that post during the year; the other was reported at Fort Sill, Ind. T.

SURGICAL OPERATIONS.

There were 164 surgical operations reported by medical officers during the year; 81 of these were necessitated by injuries, and 83 by various surgical diseases. Antiseptics were used after operations in 70 cases, 15 of which were for shot wounds.

The following table shows the number, character, and results of the principal surgical operations performed during the year:

Nature of operation.	Disease or injury.	Total.	Recov- ered.	Died.	Remarks.
Removal of tumors		19			
Sebacous.....		7	7		Scalp, 3; face, 1; neck, 3.
Fibroma.....		2	2		Thigh; face.
Lipoma.....		4	4		Face, 1; neck, 1; side, 2.
Chondroma.....		1	1		Face.
Epithelioma.....		1	1		Toe.
Bursal.....		1	1		Patella.
Unclassified.....		3	3		Thigh; wrist; thumb.
Removal of foreign bodies.		5			
Bullet and shot.....	Shot wounds.....	4	4		Flesh wounds, 2; fract- ures, 2.
Fragments of wood.....	Lacerations.....	1	1		Flesh wound, thigh.
Opening of abscesses		4			
Perityphlitic.....	Perityphlitis.....	1	1		Incision, drainage.
Peri-rectal.....		1	1		Incision.
Syphilitic.....	Syphilis.....	1	1		Incision, drainage.
Traumatic.....	Compound fracture.....	1	1		Incision.
Operations on the eye.		4			
For entropion.....		1	1		
For pterygium.....		1	1		Ligation.
Excision of the eyeball.....	Laceration.....	1	1		Rupture of eyeball.
Iridectomy.....	Cataract.....	1	1		Iritis.
Operations on the mouth.		1			
Removal of tonsils.....	Tonsillitis.....	1	1		
Operations on arteries.		2			
Ligation.....	Lacerated wound.....	1	1		Radial artery.
Compression.....	Incised wound.....	1	1		Branch of femoral.
Operations on veins.		3			
Ligation.....	Shot wound; incised wound.	2	1	1	Popliteal; jugular.
For varicocele.....		1	1		Henry's operation.
Operations on respira- tory organs.		3			
Tracheotomy.....	Diphtheria; laryngitis...	2		2	Survived 44 days, 1; 1 day, 1.
Paracentesis of pleura...	Pyothorax.....	1		1	

Nature of operation.	Disease or injury.	Total.	Recover- ed.	Died.	Remarks.
Operations on digestive organs.		20			
For fistula in ano		6	6		Incision.
For hemorrhoids		12	12		Ligation, 4; incision, 4; excision, 3; dilatation, 1.
For hernia		1	1		Inguinal.
Paracentesis abdominis	Hydro-peritoneum	a1			
Operations on urinary organs.		13			
Aspiration of bladder	Stricture of urethra	1	1		Retention of urine.
For stricture of urethra	Gonorrhoeal, 5	11	11		Internal urethrotomy.
Nephrorrhaphy	Dislocation of kidney	1	1		
Operations on generative organs.		8			
For phimosia		6	6		Circumcision.
For hydrocele		2	2		Tapping.
Operations on bones		9			
Removal of portions of	Shot wound; necrosis; fracture.	3	3		Scapula, 1; metacarpal, 2.
For ununited fracture	Compound fracture	1	1		Tibia; wiring.
Excision	Shot wound, 3; necrosis, 1	4	4		Shoulder, 1; ribs, 1; wrist, 1; knee, 1.
Elevation of depressed bone	Compound fracture	1	1		Parietal bone.
Operations on joints		17			
Reduction of dislocations		16	16		Shoulder, 9; elbow, 6; hip, 1.
Removal of loose bodies		1	1		Knee-joint.
Operations on limbs		45			
Amputations for injury:					
Shoulder-joint	Traumatic aneurism	1	1		Secondary.
Arm	Shot wound, 1; compound fracture, 1.	2	1	1	Primary, 1; intermediate, 1.
Fore-arm	Shot wound, 1; compound fracture, 2.	b3	1	1	Primary.
Wrist-joint	Shot wound	1	1		Primary.
Hand, parts of	Shot wound; compound fracture; frost-bite.	4	4		Primary, 3; intermediate, 1.
Fingers	Shot wound, 6; injury, 12; frost-bite, 1.	19	19		Primary, 13; intermediate, 5; secondary, 1.
Thigh	Compound fracture	1	1		Intermediate.
Leg	Shot wound, 1; compound fracture, 1; frost-bite.	c7	5		Intermediate, 1; secondary, 6.
Foot, parts of	Frost-bite	1	1		Intermediate.
Toes	Compound fracture; frost-bite.	4	4		Primary, 1; intermediate, 1; secondary, 2.
Amputations for disease:					
Fingers	Paronychia	2	2		
Operations on skin, etc.		11			
Closure of wounds	Lacerated wound	1	1		Face.
Ingrowing toe-nails		10	19		
Aggregate		164	154	6	

a. One case not terminated.

b. One double amputation.

c. Two double amputations.

VACCINATIONS.

The total number of primary vaccinations reported during the year was 1,398, of which 661 were successful. The revaccinations numbered 8,404, with 2,099 successful results.

Of the primary vaccinations, 476 were done among recruits at depots, and 922 in the Army at large; 202 of the former, and 459 of the latter were successful.

Of the revaccinations 4,600 were at recruiting depots, and 3,804 in the Army at large; 893 of the former and 1,206 of the latter were successful.

Of the primary vaccinations 47.3 per cent. were successful, and of the revaccinations 25 per cent.

Bovine virus was used in 1,191 primary vaccinations, with 555 successful results, or a ratio of 46.6 per 100, and in 6,574 revaccinations, of which 1,757, or a ratio of 26.7 per 100, were successful.

Humanized virus was used in 207 primary vaccinations, with 106 successful results, or a ratio of 51.2 per 100, and in 1,830 revaccinations, of which 342, or a ratio of 18.7 per 100 were successful.

That the Army at large is very thoroughly protected by vaccination is shown by the fact that only 1 case of small-pox and 1 of varioloid were reported during the year, although the disease was unusually prevalent in various sections of the country, and a large portion of the force was constantly subjected to more than the ordinary risk of contagion by reason of being stationed in the vicinity of towns whose population is largely composed of Mexicans, among whom the disease is rarely entirely absent, and frequently is very prevalent.

COLORED TROOPS.

The colored troops in service during the year consisted of two regiments of infantry, 2 of cavalry, 7 ordnance sergeants, 3 quartermaster sergeants, and 165 unassigned recruits, making an aggregate of 2,240 men, as shown by reports of medical officers. Included in this number are only 3 commissioned officers, of whom 2 are regimental chaplains, and 1 a lieutenant of infantry.

The following table shows the regions in which colored troops were employed, and a comparison between them and the white troops serving in the same regions, and in the whole Army, as to mean strength, admissions to sick report, non-effectiveness, deaths, and discharges. For reasons previously given the mean strength shown by the returns of the Adjutant-General has been used in calculating the death and discharge rates for the whole Army, but not for the several regions:

	Mean strength.	Admissions to sick report.		Men constantly non-effective.		Deaths.		Discharges for disability.	
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.	Ratio per 1,000.
Atlantic Coast:									
White.....	2,267	3,159	1,393.47	88.89	39.21	17	7.44	62	27.13
Colored.....	18	28	1,555.56	.85	47.33				
Northern Lakes:									
White.....	1,000	958	958.00	27.06	27.06	10	10.00	18	18.00
Colored.....	207	119	574.88	3.09	19.27	1	4.83	7	33.82
Central Timbered Plains and Hills:									
White.....	1,172	2,222	1,895.90	89.18	76.09	18	15.36	32	27.30
Colored.....	137	323	2,357.66	14.33	104.57	5	36.50	6	43.80
Prairies:									
White.....	3,724	4,951	1,329.48	106.89	44.82	18	4.84	91	24.44
Colored.....	321	484	1,507.79	15.89	49.51	4	12.46	13	40.50
Great Plains:									
White.....	5,850	6,941	1,184.67	234.30	39.99	44	7.51	143	24.41
Colored.....	848	1,171	1,380.90	29.45	34.74	6	7.06	34	40.09
Cordilleras:									
White.....	4,651	5,205	1,118.39	180.69	38.83	44	9.45	100	34.39
Colored.....	708	1,060	1,412.43	37.67	53.21	10	14.12	14	19.77
Whole Army:									
White.....	21,601	26,600	1,131.42	907.08	41.99	188	7.85	637	26.61
Colored.....	2,240	3,127	1,393.98	103.20	46.07	26	10.71	77	31.71

Except in the regions of the Northern Lakes, the Prairies, the Great Plains, and the Cordilleras, in which most of the colored troops in service during the year were stationed, the mean strength of these troops was so small that any comparison based upon it would be of but little value; but in the regions named the force was larger, and the ratios given consequently are more reliable than in other regions.

Using the degree of constant impairment of force as the standard of comparison, it appears that the colored troops suffered the least in the region of the Northern Lakes, and the most in the region of the Cordilleras, their non-effective rate in the former region being 19.27 per 1,000 of mean strength, or 8 per 1,000 lower than that of the white troops serving with them, and in the latter 53.21, or 14 per 1,000 higher than the white. In the region of the Prairies the colored troops gave a higher non-effective rate than the white, 49.51 against 44.82; in the region of the Great Plains the reverse was the case, the rate of the white troops being 39.99, and of the colored 34.74.

The colored troops gave the next to their highest, and their lowest, admission rates in the same regions in which they suffered the greatest and least impairment of force, but their ratio of admissions was higher than that of the white troops in all of the regions named except the Northern Lakes, where it was lowest, 574.88, or lower than that of the white by 383 per 1,000. Their admission rate in the region of the prairies, where it was highest, was 1,507.79, or 178 per 1,000 higher than the white.

The regions showing the greatest and least degree of constant impairment of force among the colored troops, gave also the highest and lowest death rates; the Cordilleras, 14.12, or 3 per 1,000 higher than the white; the Northern Lakes, 4.83, or 5 per 1,000 lower than the white. In the region of the Prairies the greatest disproportion between the death rates of the two races was shown, that of the colored being 12.46, and the white 4.84. For the Great Plains there was very little difference between them, the colored troops giving a rate of 7.03 and the white 7.51.

The ratio of discharges among colored troops was the lowest, 19.77, 14 per 1,000 lower than the white, in the region of the Cordilleras, where their rates of sickness and mortality were the highest; the discharge rate was highest, 40.50, 16 per 1,000 higher than the white, in the region of the Prairies. For the Great Plains it was 40.09, 16 per 1,000 higher than the white, and for the Northern Lakes, 33.82, 16 per 1,000 higher than the white.

The distribution of the colored troops in service during the year was such as to materially facilitate the study of the influences exerted upon the health of these troops by different climatic conditions, more especially that of temperature, for, out of a total mean strength of 2,240 colored men in the Army, 2,083, or 93 per cent. of the whole number, were distributed over the extensive area comprising the four adjoining regions mentioned above. Of this area, which extends from the northern to the southern boundary of the country, three divisions may properly be made: The northern, which includes the region of Northern Lakes and the northern groups of posts in the regions of the Prairies, the Great Plains, and Cordilleras; the middle, which comprises the middle groups of posts in the three last-named regions; and the southern, which consists of the southern group of posts in the region of the Cordilleras. The coldest climate in the United States is to be found in the northern division of this area and the hottest in the southern, while that of the middle division fairly represents the mean.

The mean strength of colored troops stationed in the northern division was 587, in the middle 941, and in the southern 555.

A comparison of the ratios of constant non-effectiveness of the colored troops serving in these divisions reveals the fact that these troops suffered a much greater degree of constant impairment of force in the hot climate of the southern division than in the colder climate of either the northern or middle divisions. The constant non-effective rates per 1,000

of mean strength were as follows, the rates of the white troops being added for the sake of comparison: Northern division, colored 38.16, white 37.44; middle, colored 34.96, white 40.58; southern, colored 57.12, white 42.18.

The admission and death rates of the colored troops were also highest in the southern division, the former being 1,475.68 against 1,337.31 in the northern, and 1,243.36 in the middle, and the latter 14.41 against 10.22 in the northern and 7.44 in the middle. The discharge rates of the colored troops were, northern 35.78, middle 41.45, southern 14.41.

From the foregoing statement it will be seen that the colored troops serving in the southern section of the country during the past year gave ratios of impairment of force by reason of sickness, and of mortality, higher than those of the white troops stationed with them, and higher than those of their own race in the colder northern regions. The statistics of the previous year, 1886, show that the same disproportions existed during that year.

In this connection it is of interest to note that the colored (black) troops of the British army stationed in hot countries compare even more unfavorably than the colored troops of our own Army with the white troops serving with them. As shown by the latest report received (1885), the troops of African descent in the British army, all of whom were in service on the west coast of Africa and in the West Indies, gave a mean strength of 1,608, and the following ratios per 1,000 of mean strength, the ratios of the white troops, serving in the same localities (mean strength 911) being given also for the purpose of comparison: Ratio of admissions to hospital, colored 1,060.03, white 923.83; men constantly non-effective, colored 62.52, white 43.08; deaths, colored 14.92, white 9.79; discharges, colored 26.74, white 14.15.

The relative prevalence of various disabilities among white and colored troops has been more fully considered under the head of special causes of admission to sick report, but, for convenience of reference, the following table showing the principal causes of disability, in the rates of occurrence of which a notable disparity existed between the two races during the year, is here inserted:

Admissions to sick report.

In favor of the white troops.			In favor of the colored troops.		
Diseases.	Admission rates per 1,000 of mean strength.		Diseases.	Admission rates per 1,000 of mean strength.	
	White.	Colored.		White.	Colored.
Boils	3.38	25.00	Alcoholism and results	50.88	2.23
Bronchitis	66.99	87.50	Intermittent fever, tertian	29.44	23.66
Intermittent fever, quotidian	50.97	68.75	Simple ephemeral and catarrhal fevers	9.54	4.46
Articular rheumatism, sub-acute and chronic	32.91	58.04	Cholera morbus	8.56	3.57
Tonsillitis	34.67	49.11	Dermatitis from heat, poisonous plants, insects, etc.	9.03	4.46
Neuralgia	30.79	44.64	Abscesses	9.95	6.70
Quinsey	2.73	16.52	Typhoid fever	7.50	5.36
Headache	23.61	36.16	Cardiac irritability	3.15	.89
Constipation	15.23	26.79	Herniæ	2.64	.45
Asthma	1.48	12.50	Tænia	1.94	.....
Chancroid	7.78	18.75	Eczema	2.96	1.34
Syphilis and results	22.31	29.46	Scabies	1.48	.....
Hemorrhoids	12.18	19.29	Influenza	2.36	.89
Catarrh and common colds	29.12	35.71			
Conjunctivitis, acute and chronic	14.49	20.98			

Constant non-effectiveness.

In favor of the white troops.			In favor of the colored troops.		
Diseases.	Non-effective rates per 1,000 of mean strength.		Diseases.	Non-effective rates per 1,000 of mean strength.	
	White.	Colored.		White.	Colored.
Chancroid .....	.43	1.58	Alcoholism and results.....	.53	.02
Pulmonary phthisis .....	.61	1.44	Gonorrhoea and results.....	1.85	1.49
Syphilis and results	2.04	2.78	Cystitis .....	.42	.12
Chronic articular rheuma- tism	2.23	2.76	Typhoid fever .....	.96	.72
Intermittent fever, quotidian	1.11	1.50	Intermittent fever, tertian ..	.55	.34
Bronchitis	1.42	1.83	Hernia, inguinal .....	.22	.01
Adenitis .....	.48	.84	Abscess .....	.38	.19
Remittent fever.....	1.01	1.40	Cardiac irritability .....	.17	.01
Venereal bubo.....	.31	.60	Nephritis (acute and chronic)	.22	.07
Conjunctivitis.....	.48	.74	Dyspepsia .....	.46	.31
Acute articular rheumatism ..	.39	.63	Eczema .....	.18	.03
Venereal epididymitis and orchitis .....	.25	.48	Vaccina .....	.75	.61
Diarrhoea	1.46	1.67	Varicose veins .....	.14	-----
Neuralgia .....	.71	.92	Enteritis .....	.15	.01
			Arthritis and results.....	.16	.02

INDIAN SCOUTS.

The mean strength of Indians employed as scouts during the year was 154. Their admissions to sick report numbered 36, or a rate of 234 per 1,000, and their deaths 1. Injuries caused 9 of the admissions, diseases of the integumentary system 5, diseases of the eye 5, malarial fevers 4, and venereal diseases 3; no cases of alcoholism were reported. The death was caused by a shot wound inflicted upon a scout who was endeavoring to escape arrest.

CIVILIANS ATTACHED TO OR WITH THE ARMY.

The civilian attachés of the Army comprise the families of officers and enlisted men, servants, employes of the various departments, together with their families, and, in short, all persons not included in the *personnel* of the Army, who are allowed to reside at military stations or accompany military commands.

As shown by the consolidated reports of the Medical Department, with a mean strength of 23,841 officers and enlisted men of the whole Army, there was constantly present during the year an average of 13,773 civilians, of whom 2,934 were adult males, 5,015 adult females, and 5,824 children. The admissions to sick report during the year numbered for the adult males 1,239, and the deaths 32; for the adult females 5,046, and the deaths 31; for the children 4,881, and the deaths 99; or an aggregate of 11,166 admissions and 162 deaths. The admission rate per 1,000 of mean strength, therefore, appears to have been 422 for adult males, 1,006 for adult females, and 838 for children, or 811 for all civilians; and the death-rate, 11 for adult males, 6 for adult females, and 17 for children, or 12 for all civilians. For the previous year the admission rate for adult males was 412, adult females 895, children 680, all civilians 694, and the death-rate, adult males 10, adult females 6, children 16, all civilians 11.

The periods of greatest and least sickness among the civilian attachés, together with the prevailing causes of disability, have been considered under the heads of the different grand divisions. The number and causes of deaths occurring in each of these classes of civilian attachés are shown in the following table:

Diseases.	Adult males.	Adult females.	Children.	Total.
Specific febrile and acute infectious	4	4	29	37
Dietic			9	9
Developmental			6	6
Nervous system		4	16	20
Circulatory system	2	3		5
Respiratory system	16	8	14	38
Digestive system	3	3	18	24
Urinary system	1	3	1	5
Parturition and results		2		2
Cancer, uterine		1		1
Unclassified		1	1	2
Total deaths from disease	26	29	94	149
injuries, poisons	6	2	5	13
Total deaths from all causes	32	31	99	162

MARRIAGES AND BIRTHS.

Upon the consolidated reports of the medical department there were noted during the year 72 marriages, of which 18 were of officers, 50 were of enlisted men, and 4 were of civilian attachés of the Army.

There were recorded also 537 births, of which 295 were male and 242 female; 108 were children of officers, 373 of enlisted men, and 56 of civilian attachés.

THE RECRUITING SERVICE.

As shown by the reports received from the various recruiting rendezvous, depots, and military stations, 17,412 applicants for enlistment were examined by medical officers during the year; of this number 1,828 were colored.

There were rejected on primary examination 9,923 applicants, of whom 1,030 were colored, and of those accepted and sent to depots 57 were rejected on subsequent examination; of these rejections 4 were of colored applicants.

The ratio of rejections was 57 per 100 of all examinations, and was the same for both white and colored applicants.

The greatest number of rejections was for diseases of the eye, 7 per cent. of all rejections being for this cause alone; diseases of the circulatory and digestive systems, and general unfitness, each about 5 per cent.; diseases of the reproductive and locomotor systems each 4 per cent.; developmental defects about 3 per cent.; diseases of the respiratory system, and enthetic diseases, each about 2½ per cent.; under age, under height, and under weight, each about 3 per cent.

There were also examined a number of Indians (371, with 3 rejections) for enlistment as scouts, but they are not included in this statement, or in the tabular summary of causes of rejection.

List of special medical and surgical reports received from medical officers of the Army during the year 1887.

MEDICAL REPORTS.

Name.	Rank.	Reports.
Alden, C. H.	Surgeon	Acute pulmonary tuberculosis.
Appel, D. M.	Assistant surgeon	Fatty degeneration of heart; autopsy.
Banister, W. B.	do	Abscess of liver.
Bushnell, G. E.	do	Acute dysentery.
		Vaccinations.
		Do.
Chapin, A. R.	do	Acute general tuberculosis.
Comfort, A. I.	Acting assistant surgeon	Acute hepatitis.
Cleary, P. J. A.	Surgeon	Subacute meningitis.
		Acute pneumonia.
		Circumscribed pneumonia.
Cline, G. L.	Acting assistant surgeon	Chronic non-suppurative inflammation of middle ear.
Crosby, W. D.	Assistant surgeon	Uræmia; autopsy.
DeLoffre, A. A.	do	New set of test spots for use in examination of vision of recruits.
Ewing, C. B.	do	Hypertrophy of heart.
Frick, A. P.	Acting assistant surgeon	Continued fever.
Forwood, W. H.	Surgeon	Typhoid fever.
Girard, A. C.	Assistant surgeon	Malingering.
Gorgas, W. C.	do	Typhoid fever (thermograph).
		Diphtheria.
Harmer, J. R.	Acting assistant surgeon	Remittent fever.
Kilbourne, H. S.	Assistant surgeon	Observations on the vision test for recruits.
Koerper, E. A.	Surgeon	Vaccinations.
Mason, C. F.	Acting assistant surgeon	Typhoid fever.
McClellan, E.	Surgeon	Measles at Jefferson Barracks, Mo.
		Typhoid fever.
		Edema of lungs.
		Small pox.
		Do.
Middleton, J. V. D.	do	Typhoid fever.
		Typhoid fever and pneumonia.
Newton, R. C.	Assistant surgeon	Eucephaloid cancer involving abdominal organs.
Patzki, J. H.	do	Cancer of stomach.
Porter, J. Y.	do	Yellow fever at Key West.
Pring, E. J.	Acting assistant surgeon	Acute alcoholism.
		Do.
Strong, N.	Assistant surgeon	Plenrley with effusion.
Sutherland, C.	Surgeon	Cholera; recommends sanitary precautions.
Tesson, L. S.	Assistant surgeon	Tubercular cerebral meningitis; recovery.
Tilton, H. R.	Surgeon	Typhoid fever.
Waters, W. E.	do	Rupture of bladder.
Wood, M. W.	Assistant surgeon	Uterine cancer treated by electrolysis; rötheln.

SURGICAL REPORTS.

Adams, F. J.	Acting assistant surgeon	Kocher's method of reducing dislocation of humerus.
		Hæmorrhoids and fistula in ano; treated with iodoform.
Benham, R. B.	Assistant surgeon	Elevation of depressed fractured parietal bone.
Brown, P. R.	do	Shot fracture, cranium; autopsy.
		Shot wound of abdominal parietes.
		Shot fracture of ankle joint; amputation.
		Shot fracture of knee joint; amputation.
		Do.
Bushnell, G. E.	do	Traumatic erysipelas.
Cline, G. L.	Acting assistant surgeon	Incised wound; chronic inflammation of knee-joint.
Comfort, A. I.	do	Lesion of spinal cord; autopsy.
Corbuser, W. H.	Assistant surgeon	Concussion of brain; acute meningitis.
Culbertson, H.	Assistant surgeon retired	Surgical cases.
Davis, T. B.	Acting assistant surgeon	Shot perforation of bladder.
Evarts, E.	Assistant surgeon	Shot wound, perforating, chest.
Frick, A. P.	Acting assistant surgeon	Shot wound, liver; recovery.
Gibson, R. J.	Assistant surgeon	Lumbar abscess.
Girard, A. C.	do	Shot fracture of wrist joint; excision.
Gorgas, W. C.	do	Tracheotomy in a case of diphtheria; suffocation.
Happersett, J. C. G.	Surgeon	Poisoning by canned corn beef.
Harmer, J. R.	Acting assistant surgeon	Shot wound, perforating, abdomen.
Harris, H. S. T.	Assistant surgeon	Shot wound, penetrating, chest.
Hoff, J. Van R.	do	Floating kidney; nephrorrhaphy.
Hopkins, W. E.	do	Rupture of brain tissue by a fall.
Hubbard, V. B.	Surgeon	Burn, fatal.
Jarvis, N. S.	Assistant surgeon	Compound fracture of patella.
LaGarde, L. A.	do	Caries of humerus; excision.

List of special medical and surgical reports received from medical officers, etc.—Continued

SURGICAL REPORTS—Continued.

Name.	Rank.	Reports.
Patzki, J. H.	do	Simple fracture, femur.
Perley, H. O.	do	Contusion; erysipelas; pyæmia.
		Varicose veins.
Raymond, H. I.	do	Tracheotomy in a case of membranous croup.
Reed, W.	do	Compound fracture of cranium.
Robinson, S. Q.	do	Drowning; autopsy.
Shaunon, W. C.	do	Poisoning from eating lobster.
		Multiple neuritis from injury; death.
Suter, W. N.	do	Shot wound, perforating, abdomen.
Taylor, A. W.	do	Homicide by shot wounds; autopsy.
Taylor, M. E.	do	Aneurism, femoral artery.
Tilton, H. R.	Surgeon	Extraction of splinter of wood twelve years after injury.
		Concussion of brain.
		Shot fracture of cranium.
Wakeman, W. J.	Assistant surgeon	Poisoning by opium.
Waters, W. E.	Surgeon	Shot wound, perforating, chest.
Weirick, S. T.	Acting assistant surgeon	Fracture of cranium.
Woodhull, A. A.	Surgeon	Shot fracture, cranium.
Worthington, J. C. ..	Assistant surgeon	Poisoning by opium.

HYGIENE OF THE ARMY FOR THE CALENDAR YEAR ENDING DECEMBER 31, 1887.

The sanitary reports received from medical officers during the year ending December 31, 1887, bear evidence that the important duty of supervising the hygiene of the commands to which these officers were attached was performed by them, as a rule, with a full appreciation of the great responsibility devolving upon them, and with a commendable degree of intelligence and discretion.

In the majority of instances the post surgeons received the cordial support and co-operation of their immediate commanders in the sanitary measures recommended, and, so far as the means at hand would permit, those measures were generally carried out.

But, notwithstanding the vigilance of medical officers and the active efforts of commanding officers, the fact remains that the sanitary conditions which prevail throughout the Army are in many respects susceptible of great improvement. Some of these conditions are, beyond a doubt, already operative in the impairment of the health and efficiency of the Army, while others may become so to a most disastrous extent under contingencies which are by no means improbable or remote. The offensive and dangerous privy vault and cess-pool are still in common use; lack of proper bathing facilities continues to be a constant cause of complaint; overcrowding of quarters and insufficient ventilation are frequently reported; the water supply of certain stations is inadequate, and at others there is reason to fear its pollution; the drainage of many posts is defective; the uniform clothing is found to be altogether unsuited to the requirements of the men in hot climates;* and the issue of salt pork as a part of the ration is generally condemned at southern stations, as is the deficiency in the food supply at some of them, which compels enlisted men to contribute to the purchase of fresh vegetables

* Since the close of the calendar year 1887, for which this report is made, the Quartermaster's Department has prepared and issued to the troops in the Department of Texas, and in a portion of the Department of the Missouri, clothing especially intended for wear in hot climates, which, it is hoped, will remove the cause of complaint against the uniform referred to above and in subsequent pages of this report.

out of their own limited means, while at the same time the proceeds of the sale of a portion of the ration are devoted to the maintenance of a regimental band, and to other purposes entirely foreign to that of feeding the soldier.

To remedy these evils drastic measures are required; antiquated methods must be abandoned, traditions of the service must be disregarded, and individual opinions and preferences must be overruled where any of these conflict with the teachings of modern sanitary science. But little can be accomplished in this direction without vigorous and decisive action on the part of the higher military authorities. Such action is urgently demanded, and, in order that it may be followed by the best results, it should be taken in accordance with a plan so carefully considered and comprehensive, that not only will the removal of existing evils be provided for, but their avoidance in the future will be insured.

The gradual abandonment of the smaller posts, and the concentration of troops into larger commands, will greatly increase the harmful potentialities of unsanitary conditions, which now pass almost unnoticed, but which need only the added conditions inseparable from the aggregation of large numbers of men to make them productive of the most serious consequences. It is therefore especially to be urged that in the selection of sites for new posts, and in the erection of new buildings, greater attention to sanitary details than has heretofore been given should be insisted upon, and that measures should be taken to prevent the repetition of those errors and omissions of location and construction, the effect of which, as a glance at the succeeding pages of this report will show, are so seriously felt, and so often reported, at military stations now occupied by the Army.

The formulation of a general plan for the improvement of the sanitary conditions now prevalent throughout the Army, especially those connected with the construction of quarters, and with water supply, drainage, disposal of night-soil, bathing facilities, food and clothing, is a matter of so much moment, and involves the consideration of so many questions of a diverse nature, and the reconciling of so many conflicting interests, that it ought to be intrusted, not to any one officer, or to the officers of any one arm or department, but rather to a board of officers, who should represent different branches of the service, and should be selected because of their especial fitness for the duty required. No argument can be needed to demonstrate the necessity for a full representation of the Medical Department in the organization of such a board, for it is obvious that, by reason of his special training and experience, the opinion of the military surgeon and sanitarian upon almost any question likely to be presented for the consideration of the board must be entitled to considerable weight, while without his advice and assistance a satisfactory solution of many problems of sanitation can not be hoped for.

I earnestly recommend the appointment of a sanitary board as indicated above, and that this board be charged with a thorough investigation of, and report upon, the sanitary conditions prevailing in the military establishment. This report should include a statement of the nature and probable cost of proposed improvements, and upon it can be based any action which may be deemed advisable. If it be found, as it doubtless will be, that current appropriations are insufficient to meet the cost of the changes recommended, Congress can very properly be asked to provide the necessary fund.

The following is a summary by regions of the more important comments made by medical officers during the year on the sanitary condi-

tion of barracks and quarters, and on the food, cooking, clothing, water supply, bathing facilities, disposal of night-soil, drainage, and the habits of the men:

SANITARY CONDITION OF BARRACKS AND QUARTERS.

Atlantic Coast.—At Fort Schuyler, N. Y., Assistant Surgeon J. B. Girard reported that the quarters and other buildings were greatly in need of repair, but otherwise not objectionable.

At Fort Hamilton, N. Y., Surgeon A. Hartsuff stated that the casemates used as quarters were very damp and mouldy, the walls and ground underneath the floors wet, the timbers rotten, and the air stagnant; that during the summer fires were necessary in these quarters every day, even when the thermometer outside registered 95°; that quarters outside the casemates should be provided at once, and all quarters inside the casemates abandoned; that in the buildings used as officers' quarters many of the basements were wet and subject to flooding during storms; that some of these buildings were set close to the ground and had no basements, and in these the foundation timbers were rotten, and the air underneath stagnant and foul; that the tin-covered roofs of some of them were in such close proximity to the ceilings that in warm weather the heat in the second stories was almost intolerable.

At Fort Wadsworth, N. Y., Assistant Surgeon V. Havard suggested that some means of ventilating the casemates should be devised, because, when the doors and windows were closed, the air was very close and stagnant.

At David's Island, N. Y., Surgeon J. V. D. Middleton, in his report for January, said that considerable sickness had occurred at the post on account of the crowded condition of the barracks in connection with the changeable weather and damp atmosphere, and that six cases of pneumonia, several of them very severe, and a large number of cases of bronchial catarrh and tonsillitis had been treated in the hospital during the month. Overcrowding and insufficient ventilation of these barracks continued to be a cause of complaint for a great part of the year.

At Willets Point, N. Y., in December, Surgeon J. C. G. Happersett stated that, in his opinion, the overcrowded, badly-ventilated condition of the barracks was one of the chief causes of the constantly large sick report of the post, and renewed his recommendation for the admission of fresh air by means of boxes opening beneath the stoves. Of the guard-house he said:

I know of no alteration which could be made that would make it a creditable building for the purpose. The basement prison room, which is damp and without ventilation, and in which the excrement of, sometimes, twenty-six prisoners is accumulated from evening until morning, is scarcely in keeping with the demands of modern sanitary science.

Northern Lakes.—At Fort Snelling, Minn., in May, Surgeon C. H. Alden invited attention to the unfitness of the old hospital for further occupation as quarters, stating that the lower floor was partly underground and damp, and that the same objection applied to the basement in the old stone fort occupied by married soldiers and their families.

At Plattsburgh Barracks, N. Y., in December, Assistant Surgeon W. O. Owen reported that the accommodations of the hospital were entirely insufficient to admit of the proper treatment of the sick, there being only one room available for use as a ward and as a day and sleeping

room for the attendants. The capacity of this room was stated to be 5,040 feet, giving 840 cubic feet of air space to each bed, the windows and doors furnishing the only means of ventilation.

At Madison Barracks, N. Y., in August, Assistant Surgeon E. T. Comegys recommended that furnaces be introduced into the officers' quarters for the reason that these buildings, which are of stone, are extremely damp in the spring and fall months.

At Fort Wayne, Mich., in March, Surgeon H. McElderry found that the ventilation in the dormitories of the men was defective because of the lack of inlets for fresh air, there being none at all except the doors and windows, which, in cold weather, the men keep tightly closed. He recommended the adoption of the system then in successful operation in the post hospital.

Central Timbered Plains and Hills.—At Jefferson Barracks, Mo., Surgeon E. McClellan condemned the practice of storing vegetables in the basements of the barracks, and expressed the opinion that much sickness had resulted therefrom. The erection of a separate building for this purpose was recommended.

Prairies.—At Fort Sisseton, Dak., Assistant Surgeon J. L. Phillips, in his sanitary report for April, called especial attention to the want of room in the company quarters, saying that they are poorly ventilated, miserably lighted, and overcrowded; that the aisles in the dormitories, which serve the double purpose of dormitory and sitting-room, are about 4 feet wide; that the bunks are not more than 30 inches apart; and that the height of the room is about 10 feet. This condition appears to have remained unchanged throughout the year, though an attempt was made to remedy the overcrowding by placing some of the men in tents during the summer.

At Fort A. Lincoln, Dak., Assistant Surgeon V. Havard reported, in December, that the unsubstantial character of most of the occupied quarters, and the careless manner in which they were constructed, make it difficult to keep them warm during the winter months, and impossible for most of the married officers to keep within their allowance of fuel.

At Fort Yates, Dak., the barracks occupied by the enlisted men were reported to leak badly, and to need reshingling.

At Fort Bennett, Dak., in December, Acting Assistant Surgeon J. B. Ferguson states that the quarters of enlisted men are too small, and ventilation poor, and adds:

The building itself is raised from 2 to 3 feet above the ground level, and stands upon wooden supports which rest upon the surface only. The constant freezing and thawing of the earth in winter affects the building injuriously, producing large cracks in the wall and making it impossible to keep the plaster in good condition. These cracks admit cold draughts, which render the men liable to colds, catarrh, etc. This can only be remedied by placing a solid foundation of brick or stone underneath, which should be done as a matter of economy if for no other reason.

At Fort Sully, Dak., Surgeon C. DeWitt reported that a majority of the buildings were old and unfit for habitation; that none of them had any means of ventilation other than the doors and windows; and that in cold weather it was impossible to keep the officers' quarters even comfortable.

At Rock Island Arsenal, Ill., Acting Assistant Surgeon W. W. Grant, in his April report, says:

The hospital is the only building at the post in bad condition. It is old and decayed, and is liable to fall down during any severe storm, and its present appearance is a disgrace to the arsenal.

At Fort Riley, Kans., Surgeon S. M. Horton reported that the guard-house was insufficiently ventilated, and that some of the barracks were overcrowded and badly ventilated.

At Fort Concho, Tex., Assistant-Surgeon C. M. Gandy remarked that, considering the loose construction of the quarters, and the dust-storms of the country, the quarters were kept remarkably clean, but that, as regards repair, their condition could hardly be worse, and that in cold, wet weather they were unfit for human habitation. In the sanitary report of this post for May, he says:

The recent cyclone has still further damaged the already dilapidated quarters, and it is earnestly hoped that some repairs will be made thereon before another winter, should the post be occupied so long, because positive suffering must ensue among troops spending the winter in such shells as these now are. I would also recommend that some steps be taken to close the chinks and crannies (and they are many) in the walls and around the window-frames of the officers' quarters, that they may be made at least partially bat-proof. The low, badly ventilated attics, by courtesy styled bed-rooms, are well-nigh uninhabitable, with the sun's rays beating down upon the roof and because of the stench arising from myriads of bats.

Great Plains.—At Fort Assiniboine, Mont., in December, Assistant Surgeon L. A. LaGarde says:

The winter season demonstrates that the men's barracks are faulty, in that the kitchens are included in the main part of the buildings. In a climate like this, in which it is found necessary to close doors and windows the greater part of the year, the culinary department of every barrack should be separate and distinct from the main building. The smell of cooking cabbage, turnips, and sauerkraut, and of the cooking generally, is detected in the dormitories and barrack-rooms at nearly every inspection. The kitchens are tight boxes, with no attempt at ventilation whatever.

At Fort Custer, Mont., Assistant Surgeon C. E. Price reported that the barracks, hospital, and officers' quarters were old and much out of repair, and that the ventilation of all was poor, there being no arrangement for obtaining a supply of warmed, fresh air, while in very cold weather the exits for foul air were sure to be closed, and the rooms to become offensive in consequence. In December he remarked that the guard-house was in very bad condition, there being only one room for the general and garrison prisoners, and that the floor and walls were in such a bad state of repair that it was impossible to keep the building properly cleaned. He further says:

The guard-tent for the officer of the guard does not afford adequate shelter to the officer occupying it in such weather as we have had for the past ten days, and the weather will probably be colder during the next month. Although in cases of necessity, even in colder weather than we have yet had, officers live entirely in tents, and by doing so continuously become inured to it, and their health suffers no injury, still, when it is not absolutely necessary, I consider it a very risky procedure to compel an officer, whose duties are of such a nature that he must be dressed to go out at a moment's notice, and who sleeps ordinarily in a warmed house, to occupy a single tent, with open floor, and only dry cottonwood for fuel.

At Fort Meade, Dak., in December, Assistant Surgeon George McCreery reported that the barracks were overcrowded, and the ventilation totally inadequate.

At Fort Niobrara, Nebr., Assistant Surgeon T. E. Wilcox stated that the guard-house was wholly unfit for its purpose and greatly in need of repairs.

At Fort Robinson, Nebr., Assistant Surgeon W. Reed reported that the quarters occupied by a troop of cavalry were old and dilapidated, miserably lighted and ventilated, and unfit for occupation.

At Fort Hays, Kans., Surgeon H. M. Cronkhite having reported a case of typhoid fever due to a defective drain, the medical director of the department, Surgeon Charles Page, remarked that the barracks at this

post were hardly habitable, and that an early abandonment of the station would be to the advantage of the command.

At Fort Reno, Ind. T., Assistant Surgeon J. Van R. Hoff persistently urged the adoption of ridge ventilation in the barracks, but the post commander disapproved of the expedient as it required work and materials for which no funds were available, and because he thought in that climate the barracks were nearly always well ventilated by open doors and windows. In September the post surgeon renewed his protest against the faulty construction and overcrowded state of the quarters, and said:

It has been said that the sick report shows no evidence of unsanitary conditions, and therefore that they can not exist; but even if this were the fact, it is well known that overcrowding and bad air generate poisons which, though not necessarily immediately manifest in their effects, cause a continuing loss of vitality and ultimate breakdown. Leaving out of consideration service efficiency, and regarding the subject from a pecuniary stand-point and merely as a matter of economy, troops should never be exposed unnecessarily to unsanitary conditions, for the ultimate outlay in the way of pensions alone would greatly exceed the cost of rendering the habitations of our Army entirely healthful.

At Fort Elliott, Tex., Assistant Surgeon R. C. Newton reported that the guard-house was old, with decaying floors and timbers.

At Fort Stanton, N. Mex., Assistant Surgeon M. E. Taylor remarked, in his October report, that, with few exceptions, the buildings at that post have been imperfectly planned and constructed for health and comfort. Recently they have been much improved.

At Camp Pena Colorado, Tex., Assistant Surgeon P. Clendenin reported that the men's barracks were totally inadequate in size, and the bunks too near together. He recommended that a broad veranda be built around the barracks.

At Fort Clark, Tex., Surgeon B. F. Pope, in April, remarked that the barracks, with one or two exceptions, were overcrowded, and that some of them had such low roofs and small windows that in summer the heat in the upper stories was almost unendurable. He remarked that this defect might be remedied by introducing ridge ventilators.

At Fort Ringgold, Tex., Assistant Surgeon William F. Carter stated that the company quarters had no system of ventilation, and the dormitories were overcrowded; that the barracks needed general repair and the introduction of ridge ventilation, and that they were infested with bats.

At Camp Eagle Pass, Tex., Assistant Surgeon P. R. Egan reported that the quarters were old, and too open to the "northers" to be healthful.

Cordilleras.—At Boise Barracks, Idaho, in March, Assistant Surgeon A. C. Girard remarked that the quarters of the commissary and quartermaster sergeants were log buildings, built of green logs in 1866; that the logs were rotten, harbored bed-bugs, and exhaled an unpleasant odor.

At Fort Washakie, Wyo., in April, Acting Assistant Surgeon C. T. Mason called attention to a portion of the wing of the cavalry barracks which had fallen in, and urged that these buildings be torn down and new ones erected. He also reported that the barracks and hospital were badly ventilated, and recommended ridge ventilation.

At Fort Union, N. Mex., in September, Surgeon H. Lippincott stated that the barracks were old and worn out.

At Fort Thomas, Ariz., in May, Assistant Surgeon E. B. Morris remarked that the roofs of the officers' quarters leaked badly.

At Fort Grant, Ariz., in January, Assistant Surgeon W. H. Corbusier

reported the barracks to be badly ventilated, and that one set was unfit to be occupied.

At Fort Huachuca, Ariz., in June, Assistant Surgeon L. Wood reported that the ventilation of the guard-house was very poor, and was effected through the windows, there being no overhead ventilation. He recommended the introduction of ventilators in the ceiling.

Pacific Coast.—At Fort Canby, Wash., in September, Assistant Surgeon C. E. Munn stated that the officers' quarters were not properly ventilated, and suggested the cutting of apertures in the brick underpinning.

At Angel Island, Cal., in November, Surgeon R. H. White called attention to the dilapidated condition of most of the post buildings, and said :

The foundations are rotten; the floors are worn out; the plastering is cracked from the settling of the piles on which the buildings rest; the roofs should be renewed; and, altogether, the repairs needed are so general as to suggest that the entire post should be rebuilt rather than repaired. To patch the present dilapidated post would seem to be false economy.

FOOD.

Gulf Coast.—At Fort Brown, Tex., in June, Assistant Surgeon S. Q. Robinson remarked that the pork and bacon were not of satisfactory quality.

Prairies.—At Fort Bennett, Dak., in January, the supply of vegetables became exhausted, and, on Acting Assistant Surgeon J. B. Ferguson's recommendation, the bread ration was increased to twenty-two ounces. At the same time the fresh beef was reported to be of poor quality, and it was said that this is usually the case at that season of the year.

At Fort Concho, Tex., in his report for December, Assistant Surgeon C. M. Gandy remarks :

A more varied diet, with an actual saving in cost, might be effected if the subsistence department kept for sale at the post a greater variety of stores; golden syrup is preferred by the men to "drips," and the cost is about half; breakfast hominy and cheese (Young America) are popular and nutritious articles of diet; and so the list might be extended without exceeding the supply table.

It was also reported that the greater part of the potatoes received at this post in July were rotten, and that a large portion of the remainder spoiled before they could be used.

At San Antonio, Tex., Surgeon F. L. Town found that the saving which could be made on the ration did not admit of the purchase of fresh vegetables for company messes.

Great Plains.—At Camp Poplar River, Mont., in May, Assistant Surgeon C. N. B. Macauley said that the ration was good, except the beef, which was still somewhat impregnated with wild garlic.

At Fort McKinney, Wyo., in May, Assistant Surgeon D. Weisel remarked that complaint was made of the inferior quality of the fresh beef; that it contained an undue percentage of bone, and was very poor.

At Fort Robinson, Nebr., in April, Assistant Surgeon W. Reed reported an outbreak of diarrhoea due to eating apples which had been stewed in a copper-lined kettle and left standing therein for nearly twenty-four hours.

At Fort Laramie, Wyo., in March, Assistant Surgeon A. W. Taylor noted that the bread was musty and not fit for use.

At Fort Reno, Ind. T., in October, Assistant Surgeon J. Van R. Hoff reported the treatment of a number of cases of tape-worm, and said:

It is presumed that these cases originated from eating raw, or underdone meat, though usually meat served to enlisted men is rather over than under done. I would respectfully suggest that the command be cautioned against eating raw, or improperly cooked, meat.

At Fort Bliss, Tex., Assistant Surgeon S. G. Cowdrey, in his report for the month of March, says, concerning the commissary supplies:

There could be a great improvement in the quality of some of the articles, and a great saving in others, if the requisitions for perishable articles were made for a shorter time. This especially applies to the supply of butter and bacon. The commissary is now selling butter which was received at the post last September; it is pretty poor stuff. The supply of bacon sent here last year was so great that much of it was spoiled before it could be used, and was condemned as worthless and rancid.

At Camp Pena Colorado, Tex., in October, Assistant Surgeon P. Clendenin, condemning the issue of salt pork, remarked:

Salt pork is unfit for issue in this climate even when it is in good condition; the men rarely relish it, even in winter, and it is almost impossible to keep it sweet with the exercise of the greatest care; it frequently spoils in transportation, and is unfit for use when received.

The post commander concurs in the foregoing, and adds that, because there is no sale for the salt pork except to the subsistence department, and that at a very low price, and because the greater part of the savings of a troop or company must be made on the salt meat, it follows that the men are compelled to contribute out of their pay \$1 each, per month, in order to obtain potatoes, onions, and other fresh vegetables.

In December, the post surgeon further says:

Two-tenths of the meat ration is issued in salt pork. Even this small proportion is too great; the larger part of it is turned in to the commissary, and but a small return is obtained for it. I consider it very unfortunate that all the salt meat can not be issued in bacon, which is quite palatable, and has a higher money value.

At Fort Clark, Tex., Surgeon B. F. Pope reported, in March, that the diet of the troops appeared to be satisfactory, but he had learned that in several companies it was made so only by contributions from the pay of the men.

In his sanitary report for May he says:

Considerable complaint has been made in regard to the beef. I have, on several occasions, found it blood-sodden and soft, as though the animals had been overdriven before slaughter. Should this prove to be the case, the attention of the contractor should be called to the fact with a view to remedying it.

At Fort Ringgold, Tex., in February, Assistant Surgeon W. F. Carter writes:

The diet of the men is very good, though this is owing to the fact that the enlisted men of the companies contribute about a dollar a month per man to keep up the company mess. The extra contribution is mainly used for the purchase of potatoes and onions. It is manifestly unfair that the enlisted men should have to contribute from their small pay to the common mess in order to procure the food which the appetite craves in this climate, and which is necessary to the health and well-being of the command. I recommend that every possible effort be made to secure the addition of potatoes and onions in suitable quantities to the ration at this post, and to have salt pork, of which the men have not eaten as much as an ounce per man during the last fifteen days, dropped from the food supply.

In forwarding this report the medical director of the department, Surgeon E. P. Vollum, says:

The practice of taking monthly contributions of about \$1 each from the enlisted men, mainly for the purchase of potatoes and onions for the company mess, is an emphatic and pointed criticism of the ration, or the management of it, by those

who have to eat it. This practice has existed in this department quite generally for some years past, and the necessity for it should be inquired into, and means adopted to abolish it. Surely it never was intended by the Government that the enlisted men should be compelled to purchase the food that they feel is necessary to their health and well-being.

In the sanitary report of Fort Ringgold, Tex., for April, Assistant Surgeon H. S. T. Harris remarks :

The acting commissary of subsistence continues to issue salt meat to the companies for three days out of ten. The salt meat, as before mentioned, is not suited for consumption in this climate; it would be palatable in the winters of Dakota, but it is revolting at all seasons of the year in Texas. Its cheapness seems to be the only argument in favor of its use. An extension of the same argument would lead to the adoption of even a worse diet, if any articles of diet could be worse than salt pork for this climate. If the salt meat were dispensed with, and fresh vegetables added in its stead, the men would be more contented and their health would be improved.

In forwarding this report the post commander says :

The remarks regarding the issue of salt meats, condemning it in this almost tropical climate, meet my entire concurrence. Every medical officer of experience and judgment has properly urged the discontinuance of the issue on the ground that it is detrimental to the health of the troops, yet their recommendations have been entirely ignored. Fat salt pork may be deemed a luxury when nothing else is obtainable, but otherwise it is repulsive to taste and digestion. Why this issue is forced upon the soldier after its injurious effects have been so forcibly and repeatedly represented by the medical profession, which is presumed to know what should constitute a healthful diet, is incomprehensible.

The medical director of the department expressed his concurrence in the views of the post surgeon and post commander.

In May it is reported from this post that the men do not eat the fat salt pork, but buy vegetables with their own money. The medical director adds :

This amounts to furnishing a kind of food which is unfit for the men to eat, and forcing them either to buy the kind which they crave, and need with their own money, or to go without it. It is believed that, if the feeling of repugnance the men have for pickled pork in this climate could be brought to the attention of the authorities, this ground of complaint, which prevails all over the department, would be abolished.

In June, after stating that each man contributes \$2, or a little more, at each pay-day for the purchase of potatoes and onions, the post surgeon continues :

After some further observation of pickled pork as an article of diet, I must repeat my former statement, that the men do not like it. A mess of it is commonly served alone. Great slabs of it are left uneaten; these are cut up into a pie, or hash, or disguised in beans or cabbage, and finally gotten rid of. It is a very economical article of diet—a little of it goes a long way. I hope that every effort will be made to have fresh vegetables issued as a part of the ration at this station, or to have the money value of the ration so increased that vegetables may be purchased with the company savings, and also to have pickled pork abolished as a part of the ration.

In the sanitary report of this post for November, Assistant Surgeon W. F. Carter remarks :

The issue of mess pork should be discontinued in this climate. It should be borne in mind that the average temperature of this latitude approaches, if, indeed, it does not reach, the highest known in the United States. The kind of food the system needs is determined largely by conditions of climate, and it is irrational to suppose that a diet suitable to the dwellers along our Canadian border would be, or could be, a proper diet for the inhabitants of the semi-tropical climate of our Mexican frontier. In the cold and bracing climate of high latitudes the exalted and quickened vital processes demand a food more or less rich in hydrocarbons, and the digestive organs receive and easily digest such food, for the reason that the system, under the conditions of active tissue change, requires it. In a hot climate the conditions are quite the reverse, and an article of food containing so large a proportion of the heat-producing elements as does mess pork becomes distasteful and even disgusting. Observation has satisfied me that our army ration is deficient, at least at posts where gas-

dens do not furnish an adequate supply of fresh vegetables, or during seasons of the year when no vegetables can be raised.

During the last month the company gardens at this post have been fairly good. I am not prepared to say that the authorized ration is inadequate, if it were judiciously and economically managed, and the men received the full benefit of it as food. I am decidedly opposed to the diversion of any portion of the savings of the ration to any fund other than a food fund. The enlisted man should get the full benefit of his ration in the best and greatest variety of food possible to be derived from its judicious use. He should not be required to contribute to a fund for the support of his regimental band, etc., while, at the same time, he is drawing from his own private means to supply a deficiency which such contribution has caused. And I believe that the expenditure of the company fund should be limited solely to the purchase of articles of food. A careful post treasurer can always make a post fund. I have observed this at posts where the issue of twenty, or more, ounces of bread was allowed, and at these very posts the men contributed about a dollar per month of their pay for the purchase of potatoes and onions. In these instances the allowance of bread was sufficient, but the ration in other respects was insufficient. The excess in the bread allowance should have gone to supply, as far as possible, the much-needed fresh vegetables.

The medical director of the department, in forwarding this report, remarks:

The diversion of a portion of the savings of the ration for the support of bands, etc., is quite unanimously regarded as an injustice to the soldier; such savings should be used for the purchase of food only. If this were the rule, there would be less necessity for the men to contribute part of their pay for the purchase of fresh vegetables for their company mess, as is now commonly done. Last year over \$12,000 were spent in this way in this department.

The inspector-general of the department, while he does not concur in all the opinions expressed in the report, says:

The question of mess pork has been discussed at some length by officers serving in Texas, but without arriving at any satisfactory results. It is a well-known fact that in hot climates mess pork is not the diet of the natives. As far back as December 11, 1818, the then Secretary of War, the Hon. J. C. Calhoun, in a report made in accordance with a resolution of Congress, made the following remarks regarding the rations: "The substitution of bacon and kiln-dried corn meal in the southern divisions will have, it is believed, valuable effects; they are both much more congenial to the habits of the people in that section of our country."

At Camp Eagle Pass, Tex., in his January report, Assistant Surgeon H. S. T. Harris says:

The bacon issued is judiciously bartered for fresh meat and vegetables; but the salt pork commands no price, and is neither nutritious nor palatable, being composed almost entirely of fat, very little of which is needed in this climate.

In September he notes that deserters from the post claim that insufficiency of the ration was the cause of their desertion.

Cordilleras.—At Fort Union, N. Mex., in July, Surgeon P. J. A. Cleary reported that the beef was lean and tough, and the same report was made at Fort Apache, Ariz., in September.

At Fort Mojave, Ariz., in March, Acting Assistant Surgeon J. L. Ord recommended that fresh fruit and vegetables be purchased for the company mess. The recommendation having been repeated in July, the post commander said:

Nothing in the way of fruits and fresh vegetables can be had at this, the hottest post occupied by troops in the country. It is absolutely necessary for the health of my command that a limited supply, at least, of fruit and vegetables be obtained for the men and officers stationed here.

Authority for the transportation of two barrels of fruit each week from Los Angeles to the Needles was requested. In November the post surgeon reported that a liberal supply of potatoes and onions was purchased with company and hospital funds, and that the necessary transportation was furnished by the subsistence department. It was sug-

gested that this list be extended so as to include beets, turnips, cabbage, parsnips, and dried and fresh fruits, such as might be designated from time to time, to be purchased in the same way as the vegetables then being furnished.

At Fort McDowell, Ariz., in June, Acting Assistant Surgeon S. T. Weirick writes:

The ration is good, except the salt pork, which is rancid and soft, and although all measures have been taken to preserve it, it is not such as should be issued to troops.

At Fort Grant, Ariz., in June, Assistant Surgeon W. H. Corbusier says:

The men have subsisted almost exclusively upon bread and meat; a diet monotonous in the extreme, and not at all adapted to a semi-tropical climate. They had a few scanty messes of greens, but, until the day before yesterday, had not had any potatoes or onions for over a month.

COOKING.

Atlantic Coast.—At David's Island, N. Y., Surgeon J. V. D. Middleton, in his January report, notes:

The new mess hall may be considered a success. The food is admirably cooked by the steam apparatus, and well served. The whole command, numbering about six hundred men, sits down to the table at the same time, and there is no confusion whatever. The railroad from the kitchen running through the hall in each direction is labor saving and of great convenience. A small force of less than a dozen men has been found sufficient to do all the work about the establishment. The chief cook, a hired man, seems to be quite competent, and the men receiving instructions under his direction will doubtless take with them to the Army a better knowledge of cooking than they could otherwise have acquired.

Great Plains.—At Fort Reno, Ind. T., in April, Assistant Surgeon J. Van R. Hoff says:

I have never been able to understand why the frontier garrison kitchens, which have fallen under my observation, are generally so illy supplied with essentials to good cooking.

In July he adds:

A more thorough knowledge of the Army cook-book, and an established bill of fare for each day, would do much toward raising the messing standard in the Army.

The post commander, in forwarding the July report, did not concur in the post surgeon's opinion that company messes should be restricted to a regular bill of fare, for the reason that market prices, and the facilities for procuring vegetables from post gardens, or by purchase, vary at each station.

At Fort Ringgold, Tex., in the sanitary report for November, Assistant Surgeon W. F. Carter sums up the advantages of a change from a company to a post mess as follows:

First, a more economical management of the ration. As a rule, I believe the larger the number of rations cooked the smaller will be the percentage of waste, and the more advantageously may the residue of a meal be carried over and utilized in the succeeding meal. Second, uniformity as to kind and quantity of food for all the men of a command. I have frequently noticed a great inequality in this respect in companies serving at the same post. I remember one instance in which a troop was almost in a state of mutiny because of poorly cooked and insufficient food. The other troop and company stationed with them were comparatively well satisfied. Third, greater convenience of inspection and supervision. Fourth, a simplification of the work of the subsistence department in its accounts with the troops—a less number of ration returns, issues made in bulk, etc. Fifth, lessened cost of maintenance, after the first cost of providing a suitable building and proper cooking apparatus. In cases where ordinary large ranges could be used, as at a two or three company post, the cost to the Quartermaster's Department in ranges, cooking utensils, etc., would be about as one to the number of companies present. Sixth, a reduction

of company property in mess outfits, etc., and, as the latter are purchased from the company fund, there would be a lessened demand upon any fund accruing from sales of savings. Seventh, a reduction in the number of enlisted men required as cooks, orderlies, etc. Eighth, a simplification of the garden system. A single post garden, under one management, could probably be conducted at less cost of money and labor than a number of smaller gardens, or one for each company, as now. Ninth, if the soldier were allowed the full benefit of his ration of flour, as he ought to be, the present post bakery could be abolished, and the baking of bread be done by the post cook or cooks. It is clear that the tendency is all in the direction of simplification. But the first and most important consideration is this: Would not the enlisted man be better fed, and if better fed would he not be more contented? I believe so, and that were this the case there would be fewer desertions.

The arguments against the post mess are: First, that it takes from the company commander the right to personally manage and superintend the feeding of his men. This need not necessarily be the case, for means of redress may be provided through the commanding officer, a post council of administration, or a specially appointed board of officers, should he, the company commander, at any time have reason to think that his men are not being properly fed. But then, in every case his men would be faring exactly like the others, and any deficiency or bad management would not be more one company commander's grievance than the grievance of all, so that their combined influence might be brought to bear for the common good. As a matter of fact, in too many instances the duty of personally inspecting the company mess, cooking, etc., is perfunctorily performed. Second, that a means of general instruction in cooking would be lost to the company. I do not believe that any exigency is likely to arise which could make it necessary or desirable that all the men of a company should be cooks or even one-half of them, any more than that all should be instructed in the use of the litter. Quite a sufficient number from each company could be properly instructed, in order of detail, under the chief, or post cook. In this case the instruction would be more intelligently given, and better cooks would be secured. As for cooking in the field, it must be remembered that the conditions here are altogether different from those in garrison. The mode of cooking the ration is different. When a soldier goes into the field he leaves behind him most of his uniform, his locker, his spring bed and mattress; and he also leaves behind him his risen bread and his fresh beef, and comes down to very simple food, such as the exigencies of the service will allow him to carry. Simple cooking will do here. Third, that it would tend to destroy the unity and *esprit* of the company, or tend to break down the distinctive company organization. But since in all other associations a company would remain the same, it is hard to see how it would suffer in these respects.

Discontinue the issue of mess pork, and give its value in bacon or fresh vegetables; let the soldier have the benefit of his entire ration as food; make it impossible that he should in some instances be the sufferer by reason of mismanagement or inefficiency on the part of his company commander; in short, give him all the benefits that are likely to arise from a common mess properly conducted, under the commissary department, or a mess officer, or a council of administration, and I believe our ration would make a very nearly sufficient diet in every respect, and under all conditions. As the matter now stands, the ration at some posts is insufficient, and a fresh vegetable ought to be added. The men should not be obliged to contribute a portion of their pay to buy a needed article of food.

CLOTHING.

Prairies.—At Fort Totten, Dak., in his January report, Assistant Surgeon A. A. DeLoffre remarks that the clothing of the men is well adapted to the climate, with the exception of the underclothing, which should be entirely of wool. In May he says that most of the articles of clothing are of good quality and well suited to the climate, but that some might be improved upon, notably the undershirts and trousers, which are too warm for summer and not warm enough for very cold weather. In November he suggests that for the better preservation of the health of the command fur coats, caps, and gloves should be worn by the troops whenever it becomes necessary for the command to perform any military duty in the open air with the mercury ranging below 10° Fahrenheit.

At Fort Sisseton, Dak., in his December report, Assistant Surgeon J. L. Phillips states that the clothing issued to the enlisted men is ex-

cellent, with the exception of the cotton flannel drawers, which, though of good material, he does not think are sufficiently warm for men compelled to be out of doors during the winter in that climate.

On this report the post commander makes the following indorsement:

While the cotton flannel drawers now issued to the troops are good, and of sufficient thickness for summer wear here, and for the entire year in such climates as that of Texas, they are entirely too thin for the long cold winters of Dakota, where the mercury stands most of the time below zero, and sometimes reaches over 40 degrees below. A majority of the men are now wearing two pairs of drawers at the same time, which is both inconvenient and expensive.

In the sanitary report of Fort Gibson, Ind. T., for the month of January, 1888, Assistant Surgeon C. N. B. Macauley makes the following statements and suggestions bearing upon the subject of the clothing of the troops:

During August and September of 1887, while on duty at this post, I had a few opportunities of observing the effect of the hot weather on the officers and men of this garrison. While, of course, my observations were to a certain extent limited and superficial, they still had a bearing on the health and comfort of troops serving in these latitudes. Although there are two months before the severely hot weather sets in, I very respectfully submit the following recommendations as to a suitable uniform for troops serving in hot climates. * * * The color of the uniform at present issued to the men, by allowing the heat-rays to pass through, adds to the discomfort of clothing that is largely composed of wool. During the extreme heat of last August I tried, by wearing the thinnest blue serge obtainable—serge thin enough to let the air play through—to clothe myself according to regulations, and at the same time to keep cool, but I found the latter impossible. At the same time some of the other officers, while retaining their uniform trousers, wore jackets made of the same stuff as the old bed-sacks. They did not suffer from the heat to the same degree that I did, although they were out and about as much as I was, if not more. They also wore straw hats, while I wore the regulation white helmet, which, although as cool as the straw where the head proper is concerned, is much heavier, and by reason of its faulty construction, does not give the same protection to the face, ears, and neck. When any of the officers were on duty, at drills, etc., they wore the regulation cap and blouse, which were very quickly changed for the straw hat and bed-sack jacket on their return to their quarters.

The brown linen that I would recommend for issue to troops in low latitudes is easily washed, does not soil easily, is nearly the color of the earth even after repeated washings, its weight is almost nothing, and its cost very low. The color (when new) is very little darker than the ordinary "pongee"—a light coffee color.

Helmet.—White, or covered with the same material that the clothes are made of. The body might be pith, such as is worn in India, which is very light, but has the disadvantage, I understand, that rain will reduce it to a pulp which swells enormously; still helmets of that kind are used at sea in low latitudes by officers of our Navy. If pith is not deemed suitable, stiffened canvas would be very little heavier. Around the outside, where the body joins the brim, a "puggaree," or thin veil of gray stuff, is fastened. In front, behind, and on both sides, a loop of canvas is riveted, and buttons from below up. The standing ends of these loops should be fastened to the helmet, just below where the puggaree is sewed on, by two light rivets, sewing being liable to cut out. The helmet should have sufficient brim in front and on the sides to protect the eyes and ears, and should dip low enough behind to protect the nape of the neck.

The helmets now in use do not begin to do this. At the point (on top) where the four seams of the covering material would meet, a small immovable dome should be fixed. This should have a number of semicircular apertures around its lower edge.

The inside of the helmet should have particular attention paid it. The ventilator should be 1 inch wide and perforated as much as is compatible with strength. There should be also an air space between it and the body of the helmet fully 1 inch in the clear. This would make a space large enough to give a free circulation of air without the likelihood of the back part being blocked up by a thick head of hair. Nine-tenths of the present white helmets have so small a ventilating space that hair of ordinary thickness checks all draught.

This helmet can be made very light and much more comfortable than a straw hat; there is no metal about it, except the four buttons and eight small rivets required for the puggaree straps. The helmet recommended is the same for all officers and men. If

it is desirable to have a device to distinguish the different staff corps and arms of the service, the present forage cap device, molded in imitation jet, or gutta-percha, can be used; the latter, without being much heavier, would be much stronger. The device should be black, and bent to fit the convexity of the helmet, and should be placed just above the button that holds the front strap of the puggaree.

The puggaree should be made of the lightest kind of gray veil material. When fastened in its place on the helmet, where the brim and body meet, it should fall low enough to permit the wearer to tuck it under his blouse collar, and still be loose enough to permit the head to move freely without danger of the veil being pulled out. In mosquito time it would take the place of the present head-net. When looped up in front it would still assist the low-dipped back of the helmet in protecting the back of the neck from both the sun's rays and insects. It may be said in objection to this veil that it would be very hot, and prevent a free circulation of air; but the amount of air cut off is very small and, in spite of that, I do not believe there is one man in ten who would not suffer more from insect bites than from the very small degree of heat engendered by the puggaree. My present experience with puggarees of much heavier material than is here recommended is that, so far from being uncomfortable, the protection afforded the nape of the neck is exceedingly comforting, and I do not notice that I suffer any more from heat than I did before the device was worn. The head-net, which is vastly more uncomfortable and unsightly, besides being inconvenient to carry around, is gladly worn. When the puggaree is rolled up it is practically taken off.

Blouse for all enlisted men.—The blouse should be made of brown linen, in the form of what is known as the "Norfolk" jacket. It should have two pleats on each side, before and behind. At the height of the pectoral muscles, under and parallel to the inner pleat on both sides, a pocket should be inserted. On each side, below the waist, should be a horizontal pocket, protected by a flap and button. The upper edge of the flap should come below the lower edge of the waist belt. These pockets will hold a great deal without spoiling the fit of the jacket, as the coat is loose. In the field the breast-pockets can be used for extra ammunition without discomfort. There should be no belt, properly speaking, other than two straps behind. These tags are recommended instead of the belt, because they confine the jacket to the body without interfering with the circulation of air, as I have found the full-length belt to do. The buttons, five in front as at present, could be of black gutta-percha, made on the model of the brass button, or they might be the regulation brass button. In either case they should be provided with split rings, or "toggles," so as to allow of their being taken off when the garments are to be washed. All other buttons should be of common bone, which will stand washing. On the cuff I would recommend a simple tag, made like one of the parts of the semi-belt on the back of the jacket, to fasten the two bone buttons which are secured to the sleeve. These could be used in the field at night, when desired, to prevent insects from crawling up the arms. The chevrons and trousers stripes of non-commissioned officers can be made of tape, the color to be that of the soldier's arm of the service. Tape will wash with the clothes, and I believe tape dyed in fast colors, which will stand washing, can be obtained.

Blouse for all commissioned officers.—This should be made the same as for all enlisted men with the following additions: The seam which runs down under the arm should be slashed high enough to permit of the sword being hooked up, the belt being worn under the blouse. This slit should be trimmed with dark brown washable braid, about $1\frac{1}{2}$ inches wide. Around this broad braid, at a distance equal to its breadth, could be put a narrow braid three-sixteenths of an inch wide. The officer's rank can be shown on the cuffs by dark brown braid loops, three-sixteenths of an inch wide, laid on the same as on the overcoat. As there is no braid on a second lieutenant's coat sleeve, the braid of a first lieutenant, without the two small loops, might be adopted. The two back seams of the jacket should be covered with a single width of the same tape, or braid, that is used on the slash; this also to be bound outside with tape three-sixteenths of an inch wide.

Trousers for all officers and enlisted men.—To be of the same material as the jacket, and made to fit the thigh snugly, but at the same time loosely enough to allow of a free circulation of air. The stripe of the different arms of the service could be retained, as I said before, if made of tape dyed in fast colors. This would be necessary to some extent for officers, as the tape on their blouses should be dark brown for all staff corps and arms.

Gaiters or leggins.—I would recommend the adoption of gaiters or leggins, to be worn on and off duty, in garrison or field. Their use would prevent woodticks, fleas, and other vermin, crawling up under the trousers legs, and beside, by confining the trousers to the leg, would make walking much more comfortable. The gaiter should be made of brown linen or light duck, and should spread out over the foot, being held down by a leather strap under the instep, and should reach half-way to the knee. Buttons would probably be better than lacing to keep them in place, and should be fastened with split-rings or "toggles." The leggins could be made the same as the

gaiters, except as to length, and would probably be preferable to the gaiter for mounted troops.

This uniform, when washed, should *not* be starched; it is believed that a sufficient degree of smoothness can be given, if the garments are ironed while damp, not wet. * * * I would further recommend that, if such a uniform should be adopted, the issue should not be confined to troops in low latitudes. During my service in the Department of Dakota, I have suffered quite as much from heat as I have down here, but, of course, during a much shorter period. At Camp Poplar River, Montana, the signal observer's thermometer registered 110° Fahr., in the shade, in July (I think) of 1886. While that degree of heat is exceptional, it does occur, and troops should be properly clothed to meet it. The hot season is not as long in the northern departments as it is here, nor quite so intense, but the contrast with the winters makes the heat seem much greater than it is, and men suffer just as much.

The puggaree herein recommended would be of immense service in the northern departments as a protection against mosquitoes, which are so thick that I have known officers and men of a command (Fort Abraham Lincoln, Dak., 1885) to become fit subjects for the sick-list merely from the attacks of these insects.

Great Plains.—At Fort Shaw, Mont., in January, Assistant Surgeon G. F. Wilson stated that the fur coats and gloves issued to the men had added greatly to their health and comfort.

At Fort Maginnis, Mont., in his May report, Assistant Surgeon H. O. Perley says that the clothing is of good quality, and the allowance, except of blankets, is sufficient; that men serving in that cold climate should be allowed four blankets, and that to supply the deficiency in the present allowance they resort to the use of such make-shifts as robes, canvas, etc.

At Fort Reno, Ind. T., Assistant Surgeon J. Van R. Hoff in his sanitary report for May remarks:

The clothing issued to the enlisted men is generally good, though too heavy for this summer climate. The soldier who conforms to regulations can not be comfortable, and consequently is by so much less efficient. That the subject of the shoes now being issued has been freely discussed, and apparently settled, makes it not one whit less unjust to the enlisted man who is compelled to purchase these shoes at a price far beyond their real value. Whatever means may have been taken to improve the quality of the shoes to be issued in the future, the fact remains that the foot-wear on hand at this post, or so much of it as is defective, should either not be issued at all, or else issued at a greatly reduced price.

In July he adds:

The clothing is excellent in quality and variety, but yet does not quite meet the requirements of the varied climate of our country, as evidenced by the fact that the prescribed uniform, in almost every garrison, is departed from to a greater or less extent. I have often thought that the brown linen trousers used by the German soldier would form a desirable addition to our already, in many respects, ample clothing list.

At Fort Ringgold, Tex., in the sanitary report for August, Assistant Surgeon W. F. Carter writes that he is more than ever convinced that a change in the character of the clothing supplied to troops serving in the South and Southwest is a pressing sanitary necessity, and says:

There can be no question that a light, white duck or cotton, uniform would conduce to the health of the men. Exposure to the sun is more or less necessary in the performance of military and other duties, and clothing of a texture and color best calculated to absorb and retain the heat must be oppressive and prejudicial to the health of those compelled to wear it. My experience in this climate teaches me that the women about a garrison enjoy to a remarkable degree an immunity from the fever which seems peculiar to our southwest section, and I think this immunity is due greatly to the cooler manner in which they dress, as well as to their indoor life. I earnestly recommend a light, white duck or cotton, undress uniform; light cotton, or mixed cotton and wool under-clothing, canvas shoes, and a white helmet made upon the same principle as that of the helmet now worn, except that the brim should be longer behind and in front, so that it will better protect the back of the neck and face.

Cordilleras.—At Fort Mojave, Ariz., in June, Acting Assistant Surgeon J. L. Ord recommended that the enlisted men be supplied with light clothing suitable for that climate during the summer months, and suggested light canvas suits as the most durable, and the best for a temperature so extremely hot and enervating, the thermometer having already shown 121° in the shade, and 140° in the sun, during the month for which the report was made.

At San Carlos, Ariz., in July, Acting Assistant Surgeon T. B. Davis notes that the clothing issued to the enlisted men is entirely too heavy for summer wear in that climate, and says that in such an excessively high temperature, it is impossible for the men to wear the proper uniform, and perform the necessary garrison duty, without great discomfort.

At Fort Grant, Ariz., Assistant Surgeon W. H. Corbusier remarked that the helmets were too heavy.

At Fort Huachuca, Ariz., in June, Assistant Surgeon L. Wood reported that the regulation clothing was unfit for that climate, and that its use was avoided by the men as much as possible.

Pacific Coast.—At Fort Canby, Wash., in his January report, Assistant Surgeon C. E. Munn recommends, on account of the almost constant exposure to rain-fall during the winter months, that special water-proof overgarments and gum boots be added to the soldiers' fatigue suits. In forwarding the report the post commander remarks:

The annual rain-fall at this post is from 60 to 70 inches, the whole falling between the months of November and April. The above recommendation has been previously made by a former post surgeon, and is now repeated for the consideration of the higher authorities. The fatigue clothing at present issued is not water-proof, and the wearer is constantly wet when performing the ordinary fatigue duties of the post.

At the Presidio, San Francisco, Cal., in November, Surgeon H. R. Tilton advised that officers and enlisted men be permitted to wear water-proof outside clothing during the rain storms, which would be of frequent occurrence during the winter, for the reason that woollen overcoats and capes soon get saturated and fail to afford the necessary protection. He expressed the opinion that it would increase the sick-list to neglect the proper protection of the person during drenching rains, and stated that there was, at the date of his report, a decided tendency to acute catarrhs, and that the appearance of pneumonia was to be feared.

WATER SUPPLY.

Atlantic Coast.—At Fort Schuyler, N. Y., it was reported that the water from the tank-house was frequently brackish and unfit for cooking or drinking purposes; and at Fort Wood, N. Y., in September, that the only water available was the rain-water collected from the roof of the barracks, and that this was often impure, as shown by the fact that, after a heavy rain-fall, diarrhœa invariably prevailed among the troops.

At Fort Monroe, Va., an outbreak of typhoid fever having been reported, an examination into the probable cause of the disease made by Surgeons Sutherland and Brooke, led to the suspicion that the drinking water obtained from the large cisterns might be contaminated by the privies in their vicinity. Samples of the water from the driven wells, and from the cisterns, were submitted to, and analyzed by, Acting Assistant Surgeon W. W. Mow, the chemist of the Surgeon-General's office,

who reported that the general supply, obtained from the driven wells, was a good wholesome water; that there was no evidence of pollution of animal origin in the cistern water, and that the existing impurity was probably of vegetable or atmospheric origin, or both.

Surgeon Sutherland, referring to this analysis, said :

The report of the analysis of the cistern water by the examiner at Washington is qualified by the expression of the opinion that this water may hold an impurity of a vegetable or atmospheric nature. Unless some other cause is hereafter discovered to explain the origin of the fever at Fort Monroe, we must assume this water to be at fault, and chargeable with the outbreak of the disease. Typhoid fever is a filth disease, and transmissible in water. Cistern water, all things being equal, should be the purest of drinking water; but cisterns lose their excellent character almost as easily as some wells and streams, if not watched. * * * These cisterns should be overhauled and made ready for the possible appearance of cholera. Situated as they are, close to the sinks, a very small fissure may allow of the entrance of disease germs which chemical analysis would fail to detect. The sinks are located in a sandy soil, greedily absorbent, and there is very little reason to doubt that the ground in their vicinity is in a thoroughly vitiated state.

Eastern Timbered Plains and Hills.—At Fort Myer, Va., in January, the post surgeon reported that the supply of water was sufficient for all ordinary purposes, but that, owing to the smallness of the supply pipe, it was not furnished to all the buildings in sufficient quantities. He stated that in the hospital particularly the water was frequently entirely shut off, and, the supply not being sufficient to flush the water-closet, the building was filled with the foul odor of the closet.

Northern Lakes.—At Fort Mackinac, Mich., in August, Assistant Surgeon C. E. Woodruff said, concerning the spring from which the water supply of the post was obtained :

The spring which supplies the garrison with water is itself open to suspicion. It is at the foot of a high hill upon which are the officers' quarters, and behind these quarters are the cess-pools and pits for drainage. Impurities from these sources always find their way into the subsoil drainage, and are carried considerable distances; the hill would naturally lead them into the spring. The water appears to be pure and wholesome, and no recorded cases of disease can be traced to its use, but the suspicion of impurity leads me to recommend that all the water for the post be pumped from some portion of the lake where there is a constant current, and where no drains or sewers from hotels or houses empty.

At Fort Wayne, Mich., in November, Surgeon H. McElderry called attention to the fact that the source from which the drinking water was supplied was the Detroit River just below the city of Detroit, which has a population of about 160,000, and said :

The water obtained from this source is apparently of good quality—that is, I know of no case of disease occurring at the post which can be attributed to the drinking water; but, in case any epidemic disease, such as typhoid fever or cholera, were to break out in the city of Detroit, it would be necessary to cease drinking water taken from its present source, as no filter, and no amount of dilution, can be relied on to keep out the germs of such infectious diseases.

Central Timbered Plains and Hills.—At Jefferson Barracks, Mo., in his March report, Surgeon E. McClellan remarks :

The water supply of the depot has become a matter requiring careful attention. Water is now furnished directly from the river, and has been so furnished very frequently for the past six months. The well upon the bank of the river, at the pump-house, from which so much was expected, and which in the spring of last year promised so well, has become practically useless, being so full of mud from deposit from the river that water cannot be drawn from it.

Prairies.—At Fort Pembina, Dak., the post is supplied with water pumped by steam from the Red River into an elevated reservoir, and carried thence by pipes to the rear of all the buildings. Assistant Surgeon W. E. Sabin, in several sanitary reports, stated that it was of

good quality. The post commander in June condemned the water as foul and unfit for drinking purposes, and stated that the officers used melted ice or filtered water.

At Fort Sisseton, Dak., in May, Assistant Surgeon J. L. Phillips reported that the supply of water in the cistern was becoming scanty, and recommended that water in sufficient quantity for laundry use, scrubbing, etc., be hauled from some one of the lakes near the post, and that the water in the cisterns be used only for drinking and cooking purposes. In this way he thought it possible to avoid hauling water during the summer from Clear Lake, 9 miles distant. It was stated that, in case the cistern became exhausted, this lake furnished the only potable water in the vicinity.

At Fort Sully, Dak., in his August report, Surgeon C. De Witt writes:

The water is obtained from the Missouri River, is hauled over a sandy road, and up a steep hill, to the post, in a water tank drawn by 8 mules, and from the tank is put into barrels at the different quarters and barracks, and at the hospital. This service requires one driver and three men. * * * Unless the barrels are frequently cleaned they become offensive, and contaminate the water. A system of supply, by which water shall be distributed in pipes throughout the post, would not only add greatly to the convenience and comfort of its occupants, but would be invaluable in case of fire.

At Fort Riley, Kans., Surgeon S. M. Horton, in his sanitary report for January, says:

The supply of water is abundant. * * * I have made two tests of this water, and the chemist at Washington has made three analyses, and we both have found in it a large proportion of organic matter, the chemist finally reporting to the Surgeon-General "that this water, if not certainly bad, is at all events of doubtful purity." If this post is to be garrisoned by a command much larger than the present one, the subject of the water supply will become much more serious than it is now. There is grave reason to fear the results of using it during the coming summer for drinking and cooking purposes, and it is urgently recommended that measures be taken to secure water from another source, either from springs on the reservation, at a distance from the post, or from an artesian well. Twenty-one cases of diarrhoea and dysentery have been on sick report within the last thirty days, 5 of these being in hospital now. How to account for the prevalence of so much disease of the stomach and bowels, unless it is caused by the water used at the post, I do not know.

In August another analysis of water was made. The following is an extract from the report of the chemist of the Surgeon-General's Office:

The increase by nearly 100 per cent. in the amount of chlorine, is, under the circumstances, the most serious matter for consideration, and it is highly important that its source be determined. It is barely possible that it has its origin in the soil, though in the presence of a rather high percentage of albuminoid ammonia, and considerable nitrates, the most probable inference is that it is due to pollution. Steps should at once be taken to ascertain its source, and freedom from pollution should be most firmly established before the use of this water can be considered safe.

A board of officers was convened at Fort Riley in February and reported as follows:

* * * The board finds that the location of the pumping well, the result of the chemical examination of the ground water independent of locality, the excess of diarrhoeal diseases coincident with the introduction of the new water service, and the practically complete exemption of the one company that used cistern water, all tend to discredit the well-water for internal use. The board is therefore of the opinion that its probable character condemns this water.

Great Plains.—At Fort Assiniboine, Mont., in February, Acting Assistant Surgeon F. J. Adams said:

I am strongly of the opinion that the cases of diphtheria, typhoid and remittent fevers occurring every spring at this post owe their origin entirely to contamination of the water. Several lodges of Indians with their families have been encamped on Beaver Creek, and notwithstanding the fact that some were ordered off, others (two

lodges I believe) were not sent away. * * * The first cases of typhoid fever and dysentery at this post occurred after the Cree Indians encamped on the creek. I would recommend that great care be taken to prevent their camping on Beaver Creek above the dam.

At Fort Meade, Dak., the post surgeon having reported the water to be bad, the medical director of the department urged that measures be taken to purchase the land containing the McMillan spring, from which a satisfactory supply could be obtained.

At Fort Niobrara, Nebr., in February, Surgeon H. Lippincott reported that the supply was becoming impure, and that the post could not be furnished with good wholesome water during the summer under the existing system.

At Fort Laramie, Wyo., in September, Assistant Surgeon A. W. Taylor reported that the water was poor in quality, and said:

I have made several examinations of the water of the well which supplies the post, and have in each instance found that it was contaminated. * * * I have, as well as the imperfect resources at hand would permit, found in the water evidences that it is polluted with the drainage of a part of the post. * * * During the month there has occurred a large number of fever cases of a mild typhoid character. I feel sure that the great amount of sickness that now prevails here is due to this pollution of the water supply.

In the sanitary report of Fort Supply, Ind. T., for October, Assistant Surgeon J. L. Powell remarked the material improvement of the health of the post due to the sanitary measures adopted, and stated in regard to the water supply:

For the past three years or more this supply has been obtained from driven wells situated in close proximity to the post corral and cavalry stables, and in the midst of various quartermaster's buildings, etc. These wells are pumped by an engine, which collects the water in a reservoir on a neighboring elevation, from which it is distributed in pipes throughout the garrison. It is hardly possible to conceive of a site within the garrison or its vicinity that would have been more unsuitable for the purpose for which it was selected. * * * With a view to obtaining the safest and best water supply for all purposes in the garrison, I have made an examination into all the sources in the neighborhood, and have found a short creek, about one and a half miles distant, which yields the least amount of solid residue of all the samples examined, and is, at the same time, less liable to pollution than any water in the neighborhood of the post. On evaporation this water yielded but fourteen grains of solid residue to the gallon. The source consists of a number of springs, in close proximity to each other, which emerge from a bed of siliceous sand, and unite to form a bold and rapid stream that has never been known to go dry.

He recommended that measures be taken to supply the post from this creek.

At Fort Reno, Ind. T., in the sanitary report for August, Assistant Surgeon J. Van R. Hoff says:

The water supply should be obtained from the river alone, since the soil pollution heretofore spoken of tends to the contamination of the well water. Moreover, several of the wells heretofore abandoned are now used as cess-pools. As it is reasonable to presume that there is an intimate connection between the water of all these wells, I would respectfully recommend that all be closed. The tanks for storage of river water should be frequently and thoroughly cleansed. Much of the sediment which now appears in this water would probably be excluded if the tanks were covered, instead of being left open to collect the constantly flying dust. I have heretofore had the honor to recommend that all drinking water be filtered. Water is so important a factor in the transmission of disease that every precaution should be taken to guard against its contamination.

At Fort Bliss, Tex., Assistant Surgeon S. G. Cowdrey reported that the supply was entirely too limited for the comfort and health of the command; that it was pumped much of the time by hand, and that there were not enough water barrels to allow of properly settling the water taken from the river. In his sanitary report for September he says:

The fevers now prevailing here are of a very severe type, due, as far as can be learned, to the scanty and filthy water supply. I desire to emphasize the necessity

for immediate attention to this matter. * * * If this old style of water wagon and barrels must be continued here, I would respectfully recommend that a second new windmill, more tankage, and more barrels be at once furnished. Fifteen water barrels asked for five months ago have not yet been received. The two companies and the band have, each, four barrels of unsettled water for scrubbing, cooking, and drinking purposes, and two barrels of muddy water for bathing purposes, daily.

In forwarding the report Surgeon E. P. Vollum, Medical Director of the department, remarks:

Complaints of the poor quality and insufficiency of the water at Fort Bliss have reached this office quite often during the past year. At present it is the most unhealthy post in the department, there being on sick report 5 cases of typhoid fever, and 4 cases of remittent fever, all of a severe type, in a mean strength of 115 men. The great amount of sickness during the past two months is to be attributed to the bad quality and insufficiency of the water used for drinking and domestic purposes. I concur in the opinion of the post commander that windmills can not be relied upon to furnish an abundant supply of water, and that a small steam-engine should be substituted therefor.

At Fort Ringgold, Tex., in April, Assistant Surgeon W. F. Carter reported the drinking water to be excellent, but said:

The water for bathing is merely liquid mud. I understand that estimates for new water tanks have been disapproved. Filters of gravel and charcoal, or sand and gravel, might be placed between the tanks, connecting them, and freeing the water of at least a portion of its mud as it flows from tank to tank. The boiler attached to the engine at this post lacks the power to do all that is required of it; it is a constant struggle to keep enough water in the tanks to supply the needs of the post. Owing to the small size and general bad condition of this boiler we are in constant danger of being left without water. From a sanitary point of view, the supply of water for bathing, etc., should be plentiful and constant.

In July, Assistant Surgeon Carter inclosed in his sanitary report a comparative tabular statement of cases treated during the first six months of 1886 and 1887, from which it appears that the monthly admission rates for intermittent and remittent fevers during the latter period were less than one-half of those for the former, and that the cases were of a much milder character, as shown by the greatly diminished average duration of treatment for each. It also appears that the monthly average of admissions for diarrhoeal diseases for the first six months of 1887 was only about one-twentieth of that for the corresponding period of the previous year. This marked improvement in the health of the troops is ascribed chiefly to the discontinuance of the use of the Rio Grande water for drinking purposes, and the substitution therefor of water distilled at the post by means of an apparatus operated in connection with the boiler, which furnishes power for the pump and other machinery.

In connection with this subject, in September, he further remarks:

I presume no military station in the country has as perfect a drinking supply as has Fort Ringgold. It is a palatable water, of the greatest attainable purity, is sufficiently abundant for a much larger garrison, and involves no cost to the Government, *i. e.*, no cost additional to that incident to running the machinery for other purposes. It is hoped that the adoption of this system will become general at army posts in the West and Southwest.

At Fort McIntosh, Tex., in August, Assistant Surgeon H. S. T. Harris, finding that the water used at this post (Rio Grande water filtered through the soil) is more or less impregnated with organic matter, recommends that an apparatus for the distillation of drinking water be erected.

Cordilleras.—At Fort Lewis, Colo., in July, Assistant Surgeon T. A. Cunningham reported that the water supply was full of organic matter washed down by the heavy rains, and that, during the summer, the drink-

ing water should be filtered and boiled, and then cooled with ice, before being used.

At Fort Bayard, N. Mex., in July, Assistant Surgeon W. D. Dietz said :

The water supply, which during the winter months is ample, proves to be inadequate at this dry season of the year; the demand is increased while the supply is diminished. The creek, which was utilized in irrigating the company gardens, has run dry, and the gardens suffer accordingly. The water supply of the post is furnished by a spring and a well, the former giving 7,000, and the latter 8,000, gallons per day. Fifteen thousand gallons of water are insufficient for the daily needs of the garrison; 30,000 gallons are actually required, and even that quantity would not afford a margin for use in the emergency of fire. The quartermaster contemplates sinking a well in the valley near the post, and from this well running drifts across the valley. As it is claimed that the valley abounds in subterranean streams, it is expected that enough water to supply the demand will be obtained.

At Fort Grant, Ariz., in June the water supply became very scanty.

At Fort Huachuca, Ariz., in July, Assistant Surgeon L. Wood reported that the water from a sunken tank was not good, and added :

I base my estimate of the condition of the water, not upon an analysis, having no means of making one, but upon the fact that in a few days after the heavy rains, which overflowed the tank, a large number of cases of acute diarrhoea accompanied by vomiting appeared, not only among the enlisted men, but also among the officers. The subject was then represented to the commanding officer, and that portion of the supply cut off; this was followed by the sudden diminution of the cases above mentioned. About a week later this water was again turned on, and the same trouble again appeared, though not to so great an extent, probably on account of the absence of so large a percentage of surface water, there having been much less rain. I am of the opinion that means should be taken to prevent the overflow of surface washings into the tank, which has been constructed in such a position as to render this overflow certain to follow heavy rains.

Pacific Coast.—At Vancouver Barracks, Wash., in June, Assistant Surgeon H. S. Kilbourne reported that the quality of the water supplied by the Vancouver Water Company was excellent, but the quantity was then, and had been frequently during the year, insufficient to meet the requirements of the garrison.

At Fort Gaston, Cal., in June, Assistant Surgeon A. S. Polhemus noted that the supply of water was occasionally deficient at the post hospital, and at some of the officers' quarters, owing to the smallness of the delivery pipe the supply becoming exhausted before reaching the end of the line.

At Benicia Barracks, Cal., in June, Assistant Surgeon C. K. Winne reported that the water supply was barely sufficient during the month for ordinary purposes, as no water had been supplied by the Benicia Water Company, and the garrison had to rely on the stored rain water and on well water. In July the supply was reported to be sufficient.

BATHING FACILITIES.

Prairies.—At Fort Concho, Tex., Assistant Surgeon C. M. Gandy, in his June report, recommends that a room be arranged as a bath-room for the men, and that, if practicable, a box or tank be constructed therein sufficiently large for a small swimming bath, and provided with an inlet pipe from a hydrant, and an outlet leading to the ditch. He says :

This plan would, I believe, prove quite as economical as the furnishing of a number of small tubs. At present the men bathe in the river, rushing down and entering the water while heated, and remaining for a longer or shorter period with bared heads and nude bodies, exposed to the sun's fiercest rays.

Great Plains.—At Fort Custer, Mont., in February, Assistant Surgeon C. E. Price remarks:

The personal hygiene of the command is unsatisfactory. Judging from the appearance of the men when admitted into the hospital, I conclude that some of them have not had a bath since cold weather has prevented river bathing. The men, not appreciating the importance of bathing, are less to blame in the matter than the Government, which does not provide proper facilities. It is hard to induce men to bathe when it must be done in an uncomfortable and public room.

The post commander, in forwarding the report, notes that estimates have repeatedly been made for a bath house, but that no favorable action has been taken. He thus describes the arrangements for bathing in use at this post:

Each company and troop, and the band, has a room, or inclosure, set apart for bathing and washing, with a stove and a large farmer's boiler for heating water. This is all that the post affords.

At Fort McKinney, Wyo., the lack of bathing facilities was a constant cause of complaint during the year. In July, Assistant Surgeon D. Weisel says:

The water in the creek is too cold, even in midsummer, to bathe in, and with the imperfect facilities now afforded it is only with very great difficulty that the men get their regular bath.

In his report for August he adds:

The sanitary condition of a military post can never be pronounced excellent, much less perfect, until suitable bathing facilities are provided for both officers and men. In the Army, whose members should be in a physical condition as nearly perfect as possible, towards which nothing contributes so much as the regular bath, it is surprising that the providing of suitable bathing conveniences is so generally neglected. No argument is necessary to prove the importance of bodily cleanliness to the preservation of health. It has been said "Uncleanliness produces immorality and crime; beclouded faces drive men from the light; and darkness breeds dangers of all kinds." In all cities public baths are now very generally provided for the poor, and yet, in all my service, I have never been at a military post where there was a bath-room of any description in any of the officers' quarters, or where the enlisted men did not get their bath in some make-shift way, at great disadvantage and inconvenience, and frequently at their own expense. These remarks fully apply to this post.

The post commander, in forwarding this report, invites attention to, and concurs in, the post surgeon's remarks, and adds:

That sixty men, some diseased and some healthy, should be compelled to bathe in the same bath tub, is not only a disgrace to the Government, but an outrage upon the enlisted men. It is hoped that some notice will be taken of this matter by superior authorities, and that an effort to remedy so great an evil will be made.

The general commanding the department of the Platte, in his indorsement on this report, says:

There is a general lack of bathing facilities at almost every post in the department, which I can not but regard as deplorable.

At Fort Reno, Ind. T., in his April report, Assistant Surgeon J. Van R. Hoff says:

The facilities for ablution are entirely inadequate. Suitable bath houses are so necessary, and can be so cheaply constructed, that they certainly should be furnished in abundance, and every encouragement given the enlisted men to use them. When men are so closely aggregated, cleanliness is the first requisite to health.

At Fort Clark, Tex., in April, Surgeon B. F. Pope remarks:

The bathing facilities afforded the men appear to be good, although a single tub for each company is hardly enough to enable every man to take one bath a week. From the appearance of the patients admitted to hospital, I judge that the use of the body bath is by no means as general as it should be.

Cordilleras.—At Fort Thomas, Ariz., in September, Assistant Surgeon E. R. Morris reports that bath houses, properly heated for the winter and supplied with bath tubs, are the greatest present sanitary need of the post.

In October, Acting Assistant Surgeon A. P. Frick urgently recommends that bath tubs be supplied. The post commander adds:

Estimates for bath tubs have frequently been made, and as often refused. It is very necessary to have bath houses, as well as tubs, and at this post these conveniences are probably more necessary for the health of the troops than at any other post in the department.

DISPOSAL OF NIGHT-SOIL.

Atlantic Coast.—At Watertown Arsenal, Mass., in November, Surgeon J. C. McKee, in an extended special sanitary report, condemned the system of privy vaults and cess-pools which had been in use at that station for many years, and by which the soil had become saturated with putrid organic matter to a most dangerous extent. Surgeon McKee closed his report with the following remark:

The inmates of this garrison are living over a mine of disease that may explode at any time, and bring grief, dismay, and death into any or all households, as it has already done into one. Further hesitancy and delay on the part of those in authority after this warning will not only be reprehensible, but actually and absolutely criminal.

In later reports he states that a system of sewer pipes is being laid to empty into the Charles River.

At Fort Monroe, Va., in October, a special sanitary inspection was made by the medical director of the department, Surgeon C. Sutherland, who reported that in some of the privies used by the men the seats were located over iron troughs, which were emptied and flushed once daily. These sinks were said to be extremely offensive in hot weather both in appearance and odor, and it was recommended that new closets be built conveniently near the barracks of the enlisted men, and that they be constructed on the most approved plan, with comfortable single seats, proper sewer connections and ventilation, and an apparatus for flushing them automatically with salt water, thus doing away entirely with the old-fashioned trough and its repulsive features.

Northern Lakes.—At Fort Brady, Mich., in April, Assistant Surgeon G. W. Adair reports that the dry-earth system is in use at that post, and says:

This is probably the best practicable system, but to get the best, or even good, results from it two things are necessary—the boxes must be tight, and the earth must be dry. Dry dust from the roadways is the very best covering, adhering readily to all moist surfaces.

At Madison Barracks, N. Y., in December, Assistant Surgeon E. T. Comegys stated that the privies were located at such a distance from the quarters that the men using them were compelled to expose themselves in stormy weather, while in warm weather, notwithstanding the free use of deodorants, and frequent removal of receptacles containing excreta, it was impossible to prevent the atmosphere from becoming impregnated with noxious effluvia. He recommended that the privies be replaced by water-closets.

Central Timbered Plains and Hills.—At Jefferson Barracks, Mo., in October, Surgeon E. McClellan writes:

The entire sewage of this depot is now emptied into the Mississippi River below the limits of the barracks. This was supposed to have been accomplished at an earlier date, but about a year ago it was discovered that it had not been entirely, owing

to faulty plumbing work, which was at once rectified. At every point at which sewers enter the barracks or other buildings ventilating shafts have been erected. All soil pipes within buildings have been continued in the most direct lines above the roofs. All interior water fixtures have been trapped and ventilated. The use of the deadly pan water-closets has been discontinued, and they have been replaced by an improved sanitary closet. Stationary wash-stands have been abandoned as far as practicable, and those continued in use are carefully guarded.

Gulf Coast.—At Fort Brown, Tex., in November, Assistant Surgeon S. Q. Robinson recommended the adoption of the earth-closet system, and, in referring to a company commander's request for disinfectants, he remarked:

Disinfectants are not substitutes for care and cleanliness; the earth-closet system, properly attended to, renders their use seldom necessary, unless such diseases as dysentery, typhoid fever, or cholera are prevalent.

Prairies.—At Fort Pembina, Dak., in May, Assistant Surgeon W. E. Sabin writes:

Excrement is deposited in holes dug of the usual size and depth, and when these are filled the privy building is moved to new ground, the old site being covered with dirt. From repeated removals during the several years the post has been occupied the ground in rear of the company quarters has been pretty generally defiled, and the question of other means of disposal of night-soil seems to be imminent.

At Fort Leavenworth, Kans., in January, Surgeon A. A. Woodhull calls attention to defects in certain water-closets and says:

The trap is 6 or 8 feet from the bowl, which is of the old pan pattern, and the intervening pipe is consequently a receptacle for matter from which offensive gases may escape upward. The old pan closets are objectionable in every sanitary respect, and should be replaced as rapidly as possible. It is always better, if the bowl and connecting pipes are not constantly exposed to view, to have the wood-work at the front of the seat arranged to open at will.

In the April sanitary report he comments on the offensive condition of some of the old privy vaults at this post, and recommends that they be disinfected, or filled up and covered over. Concerning this recommendation Surgeon C. Page, the medical director of the department, says:

It is better that the contents of the vaults be disinfected and removed to a safe distance from the post, and that the vaults themselves be then filled with clean earth.

Great Plains.—At Fort Assiniboine, Mont., in February, Acting Assistant Surgeon F. J. Adams called attention to the fact that the walls of the privies, and the ground in the rear, were covered with frozen urine, and urged the general use of the bucket system, by means of which, if careful attention be paid to emptying the buckets, he thought the privies could be kept clean.

At Fort Niobrara, Nebr., in August, Assistant Surgeon T. E. Wilcox reports:

The older sinks are now nearly filled with excreta. During the month they have been quite freely supplied with disinfectants and dry earth, and are now in as good condition as it is possible for sinks to be; but I desire to urge the early abandonment of these factors in the pollution of the post. * * * Estimates for sewerage having been disapproved, I have to recommend the adoption of removal by the dry-earth system. If closets for two barracks be placed back to back, with a common removable receptacle, the labor of caring for them would be light, and, with suitable means for transportation and emptying, need not be difficult or disagreeable. * * * The sinks for officers may remain for the present as they are, the use of dry earth and disinfectants being continued, but the cess-pools should be abolished as soon as practicable.

In December he adds:

The excreta of the post are still received in pits, and I have to again urge the necessity for the adoption of means of removal, either by thorough sewerage, earth-

closets, brick lined and cemented vaults with accompanying odorless extractors, or shallow pits from which contents can be removed by ordinary means. The last-mentioned method need not, with the aid of dry earth (not sand) and disinfectants, be so very disagreeable as to be impracticable.

At Fort Robinson, Nebr., in his sanitary report for June, Assistant Surgeon W. Reed advises the introduction of the dry-earth system in disposing of excreta and refuse matter, not only in the new part of the post, but throughout the garrison, and remarks:

It appears to me that a plan, which possesses so many advantages in a sanitary point of view as the dry-earth system is conceded to possess, should receive careful consideration.

At Fort Laramie, Wyo., Assistant Surgeon L. Brechemin strongly urged the adoption of the earth-closet system. The post commander disapproved of it on account of the great labor and inconvenience which the proper management of the closets involves, and remarked that any change of system would not remove the poisons already deposited during the forty years the post had been occupied.

At Fort D. A. Russell, Wyo., in February, Surgeon D. G. Caldwell, commenting on the number of privy vaults at that post, expressed the opinion that, unless some system of sewerage and drainage was constructed soon, fevers of miasmatic origin might be expected to make their appearance.

At Fort Lyon, Colo., in April, Surgeon J. R. Gibson reported the privy vaults to be offensive and said:

The substitution of removable wooden boxes for vaults would be a decided sanitary improvement. The boxes should be of convenient dimensions for handling, lined with zinc, and occasionally coated on the inside with coal-tar. They should be emptied, at least three times a week, into pits at a suitable distance from the post. There should be two boxes for each company and set of quarters. The ground in the immediate vicinity of the barracks and quarters is already largely honey-combed with privy vaults, and it would be prudent to dig no more, as there is a possibility of contamination of the well, which furnishes the water supply, by percolation of the contents of some of these vaults through the soil.

The medical director of the department, Surgeon C. Page, concurred in the recommendation concerning the substitution of boxes for the privy vaults, but added:

I do not agree with the surgeon as to the advisability of emptying the boxes into pits. It would be preferable to spread the contents on the surface, at a safe distance from the post, to receive the disinfectant action of air and sunlight. It is evidence of a strange infatuation to store up excrement under our noses, and in the vicinity of wells from which we draw our drinking water.

At Fort Supply, Ind. T., where the dry earth system, with movable boxes, was in use, Assistant Surgeon J. L. Powell reported that many of the boxes leaked badly, and suggested that they should be lined with zinc, or saturated with tar and oil. He also noted that holes had been bored in some of the boxes to allow the escape of liquid matter, evidently for the purpose of saving labor in policing.

In the sanitary report of Fort Reno, Ind. T., for April, Assistant Surgeon J. Van R. Hoff suggests a systematic disinfection of the privies, and says:

Every week the excrement in all pit privies should be freely covered with a mixture of one part of chloride of lime and nine parts of clean dry sand. The annual allowance permits of 18 pounds of the chloride per week being so used. This, added to the sand, would give 180 pounds of disinfecting material. This amount sprinkled freely, at the rate of half a pound for each person using a privy, would be sufficient under ordinary circumstances. The box privies and cess-pools should be disinfected weekly with a solution of 10 pounds of sulphate of iron in 20 gallons of water. Kitchen sinks may be disinfected with chlorinated solution of soda, 1 bottle of solution to 5 gallons of water, this amount to be divided among the company kitchen sinks and bath-tubs.

At Fort Elliott, Tex., in January, Assistant Surgeon R. C. Newton recommended the adoption of earth-closets with movable boxes. The post quartermaster, to whom the recommendation was referred, stated that the vaults then in use were substituted for the sliding boxes, because the latter did not give satisfaction, and remarked that earth could be used as well in the privy vaults as in drawers. In forwarding this report the medical director of the department said:

The system of privy vaults is condemned by sanitary science, but, being less troublesome than movable privy boxes, is preferred in the Army, where officers are opposed to the fatigue labor which the proper care of these boxes imposes upon troops. The true sanitary method of disposing of excrementitious matter is to get it away to a safe distance from habitations before decomposition is advanced.

At Fort Clark, Tex., Surgeon B. F. Pope recommended the substitution of boxes of galvanized iron for the leaky wooden ones then in use in connection with the dry-earth system. In February he also recommended that steps be taken to relieve the troops from the disagreeable duty of disposing of the night-soil accumulations, and said:

It is believed that the work can be more satisfactorily performed under citizen contract; certainly the responsibility for any neglect would be more readily placed, and more effectually corrected, than now. This plan has been successfully tried at other posts, and the satisfaction given has fully compensated for the pecuniary outlay involved.

In April he suggested that the larger privies should be provided with lights, as there is always more or less fouling of the ground outside by men who dislike to enter the privies at night. In September he again recommended the employment of civilian labor to care for the privies and sinks at all times, relieving the troops of a duty which he thinks is performed, at best, carelessly and under a constant protest.

At Fort McIntosh, Tex., in December, Surgeon J. H. Bartholf noted that the zinc lining of the wooden earth-closet boxes was corroded, and that they were no longer fit for use. He urged that galvanized iron boxes be provided as soon as practicable.

Cordilleras.—At Fort Lewis, Colo., in September, Assistant Surgeon C. B. Ewing suggested the substitution of sliding boxes for the pits and cesspools, and remarked:

This proposed system of drawers can certainly be used for at least eight months out of the twelve, and if the snow-fall be not too heavy, for the entire year. I would suggest that, in case the weather of winter should prevent the cleaning and emptying of the drawers, pits be dug for use during that season only, and that they be disinfected and filled up on the approach of spring, when the drawers could again be utilized.

DRAINAGE.

Atlantic Coast.—At Fort Adams, R. I., in July, Surgeon D. Bache reported that the stone drain was almost completely choked up with earth, sand, etc.; that it was in effect a prolonged reservoir for solid sewage, the liquid escaping into the surrounding soil; and that, as this condition had occurred before, glazed earthenware pipes, properly connected, trapped and ventilated, with means for flushing, should be substituted for the present defective drains.

At Fort Hamilton, N. Y., in September, Surgeon A. Hartsuff reported that there was but indifferent surface drainage, and no subsoil drainage at all, on this reserve, and attributed the large increase of sickness over previous months, and the prevailing miasmatic and rheumatic diseases, to long-continued rains, damp quarters, the low marshes, and undrained ponds and holes on the reservation.

At Fort Monroe, Va., Surgeon J. Brooke reported that the sewer from the hospital was frequently obstructed, that some of the plumbing within the building was radically defective, and that in November, during heavy rains and high tides, sewer contents were ejected on the parade.

Eastern Timbered Plains and Hills.—At Fort McHenry, Md., in January, Surgeon W. H. Gardner remarked that the drainage of the parade ground was particularly bad, and recommended that it should be remedied by the laying of either surface or subterranean drains.

Northern Lakes.—At Fort Mackinac, Mich., Assistant Surgeon C. E. Woodruff, in his sanitary report for August, says:

The system of cesspools and pits for house drainage at this post is primitive and objectionable, and a system of sewers should be laid to carry all this drainage to a distance from the post. I would recommend that before cold weather begins, all the cesspools be cleaned out. The pits which receive house drainage are emptied frequently, but as the water is merely poured on the ground, the impurities are not removed, but sink into the soil to be drained gradually away by subsoil drainage.

At Plattsburgh Barracks, N. Y., Assistant Surgeon W. O. Owen, reported many defects in the plumbing, and gave it as his earnest conviction that unless these defects were remedied the health of the post would suffer.

At Madison Barracks, N. Y., in the sanitary report for August, Assistant Surgeon E. T. Comegys says:

Now that the sewer is used for the transmission of fecal matter, it should be ventilated at intervals of not less than 200 feet. At present it is only ventilated in two places, but it is arranged so as to be ventilated every 50 feet if necessary. It should also be flushed frequently. Some of the old tile drain-pipes in rear of the officers' quarters are left, and as the experience of the past spring has shown that they are not only imperfectly but dangerously laid, it is most urgently recommended that they be either relaid, or better still, be replaced with cast-iron drain-pipes at once. The health of the occupants of this set of officers' quarters during the past year has not been at all good, and most, if not all, of the sickness has been due to defective drainage. This has already to a certain extent been remedied, but it still needs improvement.

Prairies.—At Fort Buford, Dak., it was reported that the drainage was imperfect; at Fort Sill, Ind. T., that traps were needed for bathtubs and sinks; and at San Antonio, Tex., that the sewerage of the post flowed in a series of pools from the outlet of the sewer, down a natural depression in the ground, and that from these pools the offensive odor of decomposing organic matter during most seasons of the year is blown directly toward the barracks.

Great Plains.—At Fort Niobrara, Nebr., the drainage was reported as natural and very defective.

At Fort Robinson, Nebr., in July, attention was called to the advisability of abandoning the use of cesspools.

In the sanitary report of Fort Reno, Ind. T., for July, Assistant Surgeon J. Van R. Hoff reports the necessity of introducing a system of artificial drains at the post, and says that the topography of this station is such that almost everything falling on the surface lies there until slowly taken up by the non-porous clayey soil, or evaporated by sun and wind, and that the sanitary condition of the post can never be above the average until satisfactory drainage is established.

Cordilleras.—At Fort Spokane, Wash., in his April report, Assistant Surgeon H. S. Turrill calls attention to the growing necessity of a better system of drainage, and says that when the post was built the usual make-shifts of open ditches, cesspools, and wooden drains were resorted to, and that the bad effects of this arrangement are now showing themselves very plainly in the post, which is becoming honeycombed with old

privy vaults, filled-up cesspools, and low places completely saturated with decaying organic matter. In December he states that the want of a thorough system of drainage becomes more apparent each month, there being an increase over the corresponding months of last year in disease of a malarial origin, and an increase in the severity of the cases.

At Fort Missoula, Mont., in May, Assistant Surgeon E. Woodruff described the sewer system at this post as follows:

It consists of a 9-inch earthen pipe laid beneath the frost line, at a depth of from 5 to 8 feet below the surface of the ground. The gradient is 9 inches to the hundred feet. There are no traps, and this constitutes the fatal defect of the system. At each set of quarters there is one vertical stand-pipe in the sink, over which is placed a seat containing two or three openings for use. At a distance of several feet is another stand-pipe in the open air, covered with a grating for the reception of fluid slops from the kitchens. * * * This system of sewerage has required so much trouble and labor to keep it in working order that, several months since, the use of the sewer was abandoned in all the barracks, and earth-closets substituted.

HABITS OF THE MEN.

Atlantic Coast.—At Fort Adams, R. I., in July, Surgeon D. Bache states that, although but 2 cases of alcoholism appear upon the sick-list for the previous month, there is still evidence of the excesses that follow the payment of troops, though it may not be shown by a formal diagnosis, and remarks that a comparison of the sick of the command, with the sick of the 155 civilians attached to the command, will show the distinction between casual sickness and this phase of preventable disease.

In November he says that one-half of the total admissions to sick report were for the immediate effects of alcohol, or for injuries received while under its influence, but that he is unable to assign any cause for this unusual and marked increase in intoxication.

Eastern Timbered Plains and Hills.—At West Point, N. Y., in January, Surgeon J. P. Kimball reports that the habits of the enlisted men at that station as a rule are very good; that during the year ending December 31, 1886, there were taken on sick report for disease or injury not originating in the line of duty but 10 cases—3 suffering from venereal diseases, and 7 from disease or injury resulting from the use of alcoholic stimulants—the mean strength of the command during this period being 288 men. This unusually good showing he attributes to the fact that many of the men belonging to the command are married.

Prairies.—At Fort Buford, Dak., in May, Assistant Surgeon S. S. Turner states that the men as a body will compare well as to habits with other commands similarly situated; that drunkenness and other vicious habits are confined to a few; that much of the evil growing out of drink is probably due to the vile quality of the liquor smuggled upon the reservation with the sole idea of profit; and that persistent but unsuccessful efforts to break up this smuggling have been made by the commanding officer of the post since the order prohibiting the sale of liquor was issued.

Great Plains.—At Fort Assiniboine, Mont., in February, Acting Assistant Surgeon F. J. Adams reported that during the month there was not a single case of venereal disease admitted to sick report, which fact he attributed to the intense cold preventing the Indians from visiting the post.

At Fort Custer, Mont., in May, Assistant Surgeon C. E. Price says

that the habits of the men are good, except for their intercourse with diseased squaws, which he sees no way of preventing.

At Fort Clark, Tex., in May, Surgeon B. F. Pope states that following the visit of the paymaster, a proportionately large number of cases of acute alcoholism, or diseases and injuries resulting therefrom, came under treatment; that while the monthly rate of admissions for these causes is only about 4 per 1,000 of mean strength for the whole Army, at Fort Clark during the month of March this rate was over 18 per 1,000, in a mean strength of 606 officers and men, and during the month of May 20 per 1,000, in a mean strength of 643.

At Fort Ringgold, Tex., in his sanitary report for July, Assistant Surgeon W. F. Carter, commenting on the increased number of cases of gonorrhœa and alcoholism during the months of April, May, and June, says:

The general demoralization of the troops at this time was strikingly noticeable. The hospital and guard-house reports show a larger percentage of men carried for diseases and breaches of discipline, incident or traceable to drink, than for a long time previously; especially may this increase be noticed for the month of May. I think an explanation lies in the fact that the post trader's establishment was closed (I think during the months of April and May), and subsequently his sales of liquors were very much restricted. The troops receiving their pay early in May, and not being able to procure whisky on the reservation, sought it in the saloons of the adjacent town.

Intemperance is an evil greatly to be deprecated; it stands as a potent cause of much of the demoralization and disease among the troops; a train of maladies follows directly or indirectly from it, over the causation of which we have little or no control. But since we must have men who will drink, and I regret to say quite a large number of them, is it not far better that the opportunity should be given this class of men to procure a fairly good quality of whisky upon the reservation, where they come under the notice of their more sober comrades, who will care for them when they become too drunk to care for themselves? On the other hand, when they go to town for their liquor they get an inferior quality, mescal, etc., become drunk, and in this condition frequent the lowest dens in the town. I strongly advocate the sale of all kinds of liquors upon the reservation, where their quality and sale may be regulated by the post commander and council of administration.

In forwarding this report, the department commander, General D. S. Stanley, says:

The wisdom of allowing the post trader to sell liquors, thus giving the military authorities control of the traffic, is just as certainly true wisdom as is the system of high license in the States.

Cordilleras.—At Fort Huachuca, Ariz., in his sanitary report for November, Assistant Surgeon J. H. Patzki, writes:

Soon after the order prohibiting the sale of liquor by post traders was issued, run-shops of the lowest grade sprang up like toad-stools in convenient proximity to the reservation. Not only is the most villainous liquor sold there, but cards and prostitutes are used as additional allurements. The result is only too perceptible; the men are fleeced by professional gamblers, crazed by liquor, become involved in drunken brawls, or fall into the meshes of the women; and each pay-day produces its crop of battered faces, empty pockets, and tainted constitutions, not to speak of breaches of discipline, and desertions the result of hopeless indebtedness. Besides this supply of liquor, there is another source, more convenient to the soldier—it is smuggled directly into the post, and into the quarters. On the whole, much more liquor is consumed now than when its sale by the post trader was authorized, the very prohibition offering an additional temptation to procure it.

As a remedy against intemperance, I consider the order in question not only a failure, but actively mischievous. With men employed, as our soldiers are, on wearing and straining duties, mere prohibition will not avail any more than it will with other classes of society. If legitimate and wholesome sources of supply are denied them, they will search for more distant and dangerous ones. The sale of strong liquor by the post trader, under proper supervision and restriction, should be authorized as a sound sanitary measure to obviate greater mischief.

SPECIAL REMARKS.

At Jefferson Barracks, Mo., in October, Surgeon E. McClellan remarks:

I would respectfully suggest that during the winter months recruits be sent to regiments serving in southern departments, and that during the summer months they be sent to regiments in the northern departments. This plan would, in my opinion, be conducive of much good by not subjecting recruits, who are at the best but badly prepared in the majority of instances to withstand abrupt climatic changes, to so great a physical test at the commencement of their military life.

At Fort Sill, Ind. T., in April, Surgeon M. K. Taylor writes.

I arrived here on November 17, 1883. For the three months immediately preceding, to wit, August, September, and October, the sick report showed that the ratio of cases of malarial fevers, diarrhoeas, and dysenteries was 505 per 1,000 of mean strength, while for the same period of last autumn the rate was only 237, with a still greater difference in the relative intensity of the attacks. This change for the better is readily perceived in the cheerful and vigorous appearance of the command when on parade. The guard reports are of the same tendency. In 1884, on the first days of the months of January, February, March, and April, the number of cases in arrest or confinement was 15 per cent. of the mean strength of the command for that period, while for the past 4 months it has been but 10 per cent. Three years ago the men had only rough pillows and bed-sacks, filled with the coarsest kind of hay, for bedding; now they have good wire-spring mattresses and hair pillows, sheets and pillow-slips, all of which they highly appreciate. Then the squad-room walls and bedding were infested with vermin to a most annoying degree; now there are no complaints, and no occasion for any. Then the only bathing facilities during cold weather consisted of a wash-tub taken into the mess-room; now there are very good bath and lavatory accommodations, properly heated in the winter, so that the men can bathe at any time, which they do frequently. Then the water supply was scanty and of the most unhealthful character; now it is abundant and of the best quality.

These betterments of the condition of the enlisted men here have been productive of the most beneficial results, alike in respect to the discipline of the post, the alacrity in the discharge of duty, and a pervading cheerfulness and satisfaction.

The experience of this post goes to show that it pays the Government to make the enlisted men comfortable in their quarters and surroundings, which, to them for the time being, constitute their homes. In this respect the soldier is like a domestic animal—the better cared for, the more efficient and willing he becomes.

At Fort Huachuca, Ariz., in November, Assistant Surgeon J. H. Patzki remarks:

Syphilis is much more prevalent than the sick report would indicate, as many sufferers conceal their affliction, or use quack remedies, while others are treated by the medical officers privately, since surgeons of experience will encourage such patients to avail themselves of regular treatment without exposing them to the dreaded publicity of going on sick report.

*WORK OF THE RECORD AND PENSION DIVISION FOR THE FISCAL YEAR
ENDING JUNE 30, 1888.*

The number of official calls upon the record and pension division during the year, for information as to the causes of death in cases of deceased soldiers, and for the hospital record of invalids, was 47,834. Including the 294 cases remaining unanswered at the end of the last fiscal year, the total number of cases to be disposed of was 48,128.

Of the new cases, 37,133 were received from the Commissioner of Pensions, 7,310 from the Adjutant General of the Army, and 3,391 from miscellaneous sources.

Replies have been furnished to the proper authorities in 47,698 cases, of which 37,002 were furnished to the Commissioner of Pensions,

7,311 to the Adjutant General of the Army, and 3,385 to miscellaneous applicants, leaving to be reported on at the end of the fiscal year, 430 cases, all of which were in the hands of the clerks, and none of which had been three days in the office.

In addition to the number of reports above stated as furnished to the Commissioner of Pensions, 1,492 have been prepared and furnished to the same officer by the administrative and miscellaneous branch of the office; making a total of 38,494 furnished to the Pension Office during the year.

The work, which was commenced in April of last year, of transcribing upon individual index-record cards the hospital registers embracing the period of the war of the rebellion, has been pushed as rapidly as possible, and during the year 1,839,349 such cards were made. These added to the number made before June 30, 1887 (168,687), amounted to a total of 2,008,036 cards made since the work was begun.

The medical history of each soldier as it appears on the hospital register is written on a separate card, 8 inches long by 3½ inches in width, containing a suitable printed form agreeing with the headings of the columns in the registers. The cards are assorted by regiments, then arranged alphabetically by name within the regiment, so that when all the registers shall have been copied, the cards showing the medical history of a soldier, who may have been treated in any number of hospitals and in any part of the country, will by this arrangement all fall together automatically; and his whole medical history can be found by simply turning to the proper letter of the alphabet in the file-box containing the cards of his regiment.

The advantages of this system of index-record cards may be summed up as follows: They answer all the purposes of a copy or duplication of the valuable records which have been fast going to destruction from constant handling; their alphabetical arrangement, in order of surnames under each regiment, will obviate tedious, and in some cases unsuccessful, search of the original records; a soldier's medical history can be readily furnished in cases where it is impossible to obtain any data upon which to search, other than his name and military organization; and finally, should it be desired to print the hospital records, the index-record cards, which contain everything recorded in the registers, are in the best possible form to send to the printer.

To facilitate and insure the proper distribution of the cards, the initial of the soldier's surname is placed conspicuously at the upper left-hand corner; the abbreviation of the State to which his regiment belonged, at the upper right-hand corner, and the number of the regiment in the center.

In order to insure the authenticity of these cards, the file number and page of the register are entered on them, so that a card can be readily compared with the original record at any time; and in addition, after the card has been found to be a correct copy, there is impressed upon it, with an automatic numbering machine, the consecutive number of the card and the date when stamped.

In most of the hospitals, and especially the large general hospitals, the register of patients practically contains in one entry a complete history of the soldier during his stay in hospital; in these cases but one card needs to be made for the soldier's treatment. But in many of the smaller hospitals, especially camp, field, and garrison hospitals, in the absence of a hospital register of proper form, a soldier's record consists of entries made each day or week during his stay in hospital; in such

cases, before the final distribution of the cards, those relating to the same soldier, which vary from 5 to 100 or more, are consolidated on one card, so as to exhibit in compact form the record of the soldier's treatment in that hospital.

By the end of the fiscal year 1,779,735 cards had been stamped; the difference between this number and the total number made (2,008,036) is accounted for by consolidation of cards before stamping, and by those in the hands of copyists and comparers at the end of the year.

The regimental index-card files are examined in each call received in the office, before it is handed to the clerks for a search of the registers not yet carded. In March, 1888, when the files were first used for this purpose, cards were found in 26 per cent. of the cases; in April, 38 per cent., in May, 47 per cent., and in June, 49 per cent.

The average number of cards found in each 100 cases was 51 in March, 75 in April, 100 in May, and 112 in June. It is evident therefore that the cards already in the files furnish record evidence from 112 hospital registers in every 100 cases received. While this is not an actual saving of the search of so many registers in that number of cases, as the cards develop evidence of treatment in hospitals not mentioned by the claimant, and consequently the original records of these hospitals might not have been searched under the old system, still it demonstrates very clearly one of the most important advantages of this method of copying and arranging the records; the office is enabled in a large percentage of cases to furnish record evidence which never would have been found without the assistance of the cards.

The medical records of the field hospitals of brigades, divisions, corps, armies and departments are all carded; and the hospital registers of general, post and other hospitals in the Western and Southern States were nearly all carded by the end of the fiscal year; leaving the New England States, New York, New Jersey, Pennsylvania, Delaware, District of Columbia, Oregon, California, Nevada, Colorado, Nebraska, and the Territories, to be completed during the present fiscal year.

After these most important books are disposed of, attention can then be turned to the auxiliary registers, and to the prescription and case books of hospitals for which no hospital registers are on file.

During the early part of the fiscal year 3,541 folios of worn hospital registers, containing 78,933 entries, were copied into new books. The satisfactory progress however made by the clerks engaged in copying on index-record cards made it safe to discontinue finally the work of reproducing even the most dilapidated registers, further risk of loss of original records from wear and tear having been reduced to a minimum.

There were received during the year from medical officers in charge of military stations and commands, 1,961 consolidated monthly reports of sick and wounded, 1,442 monthly reports of examination of recruits, 64 special reports of interesting cases, 64 surgical reports, and 1,559 monthly sanitary reports. There were also received and filed 71 bound volumes of hospital records; 3 volumes were transmitted to the office of the Adjutant-General, leaving a total of 18,990 volumes on file at the end of the year.

ARMY MEDICAL MUSEUM.

The total number of specimens received during the fiscal year was 833; total number of specimens in the museum June 30, 1888, 26,695. The following statement shows the details of additions and transfers in the different sections :

	Specimens.
Pathological section:	
In museum June 30, 1887.....	9,838
Transferred to provisional pathological section during the year	139
	<hr/> 9,699
Received during the year	119
	<hr/> 9,818
In museum June 30, 1888.....	<hr/> <hr/> 9,818
Anatomical section:	
In museum June 30, 1887.....	2,952
Transferred and discarded during the year.....	210
	<hr/> 2,742
Received during the year.....	111
	<hr/> 2,853
In museum June 30, 1888.....	<hr/> <hr/> 2,853
Section of comparative anatomy:	
In museum June 30, 1887.....	1,674
Received during the year.....	15
	<hr/> 1,689
In museum June 30, 1888.....	<hr/> <hr/> 1,689
Microscopical section:	
In museum June 30, 1887.....	10,046
Received during the year.....	370
	<hr/> 10,416
In museum June 30, 1888.....	<hr/> <hr/> 10,416
Miscellaneous section:	
In museum June 30, 1887.....	784
Received during the year.....	34
	<hr/> 818
In museum June 30, 1888.....	<hr/> <hr/> 818
Provisional pathological section:	
In museum June 30, 1887.....	443
Transferred from pathological section during the year.....	139
Received during the year.....	141
	<hr/> 726
In museum June 30, 1888.....	<hr/> <hr/> 726
Provisional anatomical section:	
In museum June 30, 1887.....	335
Received during the year.....	40
	<hr/> 375
In museum June 30, 1888.....	<hr/> <hr/> 375

Among the interesting accessions to the museum during the year may be mentioned, a series of models of diseases of the skin, a life-sized clastic model of a horse, several microscopes made in the latter part of the seventeenth century, and a series of skulls and skeletons from Peru and Australia.

The arrangement of the museum collection in the new hall was not completed, so that it could be opened to the public, until February 21, 1888. It is now arranged under the new classification, and the stream of visitors is almost constant.

The annex building for anatomical and pathological laboratories has been completed in a very satisfactory manner under the supervision of Col. J. M. Wilson, U. S. Engineer Corps. It is not yet occupied, owing to the delay in appropriating the funds necessary to furnish it properly for the purposes for which it is designed. I desire again to respectfully renew recommendations, previously made in annual reports, that authority be granted by Congress for the publication of a catalogue of the museum.

LIBRARY.

The following table shows the additions made to the library during the fiscal year :

Description.	On hand June 30, 1887.	Added dur- ing fiscal year.	Total, June 30, 1888.
Medical journals	25, 377	1, 514	26, 891
Medical transactions	3, 649	117	3, 766
Bound theses	1, 385	.....	1, 385
Bound pamphlets	1, 562	206	1, 768
Other medical books	53, 192	2, 410	55, 602
Total	85, 165	4, 247	89, 412
Medical theses	45, 279	2, 570	47, 849
Medical pamphlets	74, 271	8, 391	82, 763
Total	119, 653	10, 961	130, 614

There were presented to the library during the year 269 books and 5,212 pamphlets.

Volume IX of the Index-Catalogue, including from "Medicine (Popular)" to "Nywelt," forming a volume of 1,054 pages, has been printed, and the edition distributed to those institutions and persons who have received the previous volumes. The preparation of the manuscript of Volume X is well advanced, and the first part of it is now going to press.

MEDICAL AND SURGICAL HISTORY OF THE WAR.

The third part of the Medical Volume of the Medical and Surgical History of the War is now being issued. Its publication completes a valuable work which preserves for the medical profession and the country much of the knowledge of military surgery medicine and sanitation that was gained by our medical officers during the war.

HOSPITAL CORPS.

The organization of this corps is now nearly completed; 614 privates have been transferred to it from the line, 24 of whom were found qualified, after examination, for the position of acting hospital steward, and so detailed; 125 vacancies still remain; 9 for civilians, 10 for privates, 81 for acting hospital stewards and 25 for hospital stewards. It is hoped that these vacancies may be filled in the near future, although some embarrassment is experienced owing to the discrimination which is made against the private soldier of the Hospital Corps in the matter of his pay; he now receives but \$13 per month, whereas, under the old

regulations, he received \$23.50 per month when detailed from his company for duty as a hospital attendant. To remedy this, bills were introduced in both houses of Congress early in the present session, providing for an increase of \$6 per month in his pay, but as yet they have not been acted upon. I earnestly commend this to your attention, and trust that favorable action may be urged.

The standard of professional qualifications in all of the grades has been raised, systematic instruction in first aid, stretcher drill, etc., being given to members of the corps and company bearers, and promotions made only after successful competitive examination. The hospital stewards now in service are fully competent to perform the important duties of their positions.

The most favorable results in the administration of the hospital service at military posts have followed the organization of this corps, and are concisely expressed in the following extract from the annual report of the medical director of the Department of Dakota for the year 1888:

The Hospital Corps has given satisfaction to all concerned; to the sick, by securing them efficient attendance; to the medical officers, by securing them faithful and competent subordinates; to the line officers, by relieving their companies of burdensome details.

Attention is invited to the following tabular statement of the condition of the corps during the fiscal year ending June 30, 1888:

Annual report of the Hospital Corps, U. S. Army for the year ending June 30, 1888.

Description.	Hospital stewards.*	Acting hospital stewards.†	Privates.‡	Matrons.§
GAIN.				
In service July 1, 1887	131			167
Appointed prior to organization of corps	2			
Appointed after examination	10			118
Promoted after examination	11			
Surrendered after desertion	1			
Detailed from private		36		
Transferred from the line			665	
Enlisted			4	
Re-enlisted from other corps			12	
Total	155	36	681	280
LOSS.				
Discharged:				
Expiration of service	4		26	
For disability			4	
By sentence of general court-martial	2		3	
By order	4		5	123
Promoted		11	36	
Reduced to private		1		
Transfer revoked			7	
Retired	4			
Died	2		2	
Deserted			8	
Total	16	12	91	123
In service June 30, 1888	139	24	590	157

* Eighteen whose term of service expired during the year were re-enlisted after examination.

† Three whose term of service expired during the year were re-enlisted.

‡ Nineteen whose term of service expired during the year were re-enlisted.

§ One hundred and sixty allowed by law.

Annual report of the Hospital Corps, U. S. Army, etc.—Continued.

RECORD OF EXAMINATIONS.

	Hospital stewards.	Acting hospital stewards.		Hospital stewards.	Acting hospital stewards.
Number of applicants	56	79	Declined	13	19
Disapproved	1	2	Failed	10	10
Withdrawn	9	9	Failed but recommended for acting hospital steward		
Not entitled to examination		16	Found qualified	4	32
Examination authorized	46	52		20	

* Add 4 who failed as hospital stewards but qualified as acting hospital stewards.

CIVILIANS.

Applications received	21
Failed to accept conditions	17
Enlistments authorized	4
Failed to appear	3
Enlisted	1

PROVIDENCE HOSPITAL.

Under the provisions of the act of March 3, 1887, making appropriation of \$17,000 "for the support and medical treatment of 85 medical and surgical patients, who are destitute, in the city of Washington, under a contract to be made with Providence Hospital by the Surgeon-General of the Army," a contract was duly entered into with the institution named, and has been fulfilled to my satisfaction, and without complaint on the part of the persons sent there for treatment. The following is a statement of the amount of relief afforded under the appropriation:

Number of patients in hospital July 1, 1887	87
Number of patients admitted during the year	842
Total number of patients treated	929
Average number of patients admitted per month	77
Number remaining in hospital June 30, 1888	95
Total number of days' treatment afforded	32,866
Average number of days' treatment per patient	35
Average number of patients treated per day	90
Longest term of treatment	days 366
Shortest term of treatment	day 1
Number of patients in hospital during the whole year	21

The patients included in the statement represent all classes of diseases, acute and chronic, except those of a contagious nature. The patients shown as having remained in hospital during the whole year are paupers, incurable, without home or friends.

ARMY AND NAVY HOSPITAL, HOT SPRINGS, ARK.

The results anticipated from the treatment of disease by the use of the waters at this place have been fully realized, 50 per cent. of the patients admitted having been returned to duty cured.

The exclusion of diseases of specific origin will, it is believed, remove much of the odium attached to treatment in a special hospital, and as the benefits to be derived from the use of its waters become more widely

known to the Army and Navy, the admission rate will undoubtedly be largely increased.

The advantage of this institution to the service may be better appreciated from the fact that of the enlisted men thus restored to duty, all would, without this course of treatment, have been discharged on surgeon's certificate of disability, and their services lost to the Army. In future, before final action is taken on a numerous class of cases now recommended for discharge, efforts will be made for their relief by treatment at this hospital, and it is hoped that a sensible diminution in the large percentage of loss from this cause will follow. It is moreover suggested that in many instances, where commissioned officers seek relief through absence on account of sickness, benefit would result from admission to and treatment in this hospital.

Number of applications for admission from commissioned officers and enlisted men on the active and retired list.....	85
Number of cadets from United States Military Academy.....	1
Total	86
Number rejected	11
Number approved and admission recommended	75
Number of patients in hospital July 1, 1887	27
Number of patients admitted to June 30, 1888.....	84
Total admitted	111
Discharged cured	55
Discharged by expiration of service.....	5
Discharged on surgeon's certificate of disability.....	16
Transferred to insane asylum.....	1
Died.....	1
	78
	33
Remaining in hospital June 30, 1888, viz:	
Officers of the Army (active and retired list).....	3
Officers of the Navy (active and retired list).....	3
Enlisted men of the Army (active and retired list)	27
Enlisted men of the Navy (active and retired list).....	0
	33

MEDICAL OFFICERS.

The requirements of the Army as regards medical officers during the past fiscal year have been as follows:

Number of permanent posts	139
Number of temporary posts and sub-stations.....	26
Total	165

There were 102 medical officers reported to this office as having been on duty with scouting parties and on other field service during the year.

Since the date of last report Col. Glover Perin, Assistant Surgeon-General, has been retired, and 1 surgeon with the rank of major, 2 assistant surgeons with the rank of captain, and 2 assistant surgeons on the retired list, have died.

Lieut. Col. Charles Page, surgeon, was appointed Assistant Surgeon-General with the rank of colonel, November 17, 1887; 1 surgeon with the rank of major has been promoted to surgeon with the rank of lieutenant-colonel, and 2 assistant surgeons with the rank of captain have been promoted to surgeons with the rank of major; 4 appointments in

the grade of assistant surgeon have been made, leaving 1 approved candidate to be appointed as a vacancy may occur.

There are no vacancies in the Medical Corps of the Army.

The medical officers who have died during the year are as follows :

Major William C. Spencer, surgeon, at Fort Trumbull, Conn., March 22, 1888.

Capt. John M. Dickson, assistant surgeon, at Fort Mason, Cal., August 7, 1887.

Capt. T. A. Cunningham, assistant surgeon, at Fort Lewis, Colo., October 12, 1887.

Capt. Benjamin King, assistant surgeon (retired), at his residence near Obligation, Anne Arundel County, Md., June 24, 1888.

Capt. Thomas F. Azpell, assistant surgeon (retired), at Fort Lee, Bergen County, N. J., March 12, 1888.

There are 15 medical officers and 1 medical store-keeper on sick leave of absence; of these, 8 have been found incapacitated for active service, and recommended for retirement by Army retiring boards, viz: Assistant Surgeon James W. Buell, who has been on sick leave since August 23, 1877; William R. Steinmetz, who has been on sick leave since September 16, 1878; J. V. De Hanne, who has been on sick leave since June 22, 1879; Joseph Y. Porter, who was ordered to his home, Special Orders No. 136, Headquarters of the Army, Adjutant General's Office, June 15, 1885; F. W. Elbrey, who has been on sick leave since July 26, 1882; Surgeon B. E. Fryer, who has been on sick leave since July 1, 1885, with the exception of five months; William S. Tremaine, who has been on sick leave since February 10, 1885; and Assistant Surgeon Victor Biart, who has been on sick leave since April 21, 1884. The remaining 7 are regarded as permanently disabled; 1 officer is sick in quarters—also regarded as permanently disabled—and 1 officer is in arrest, awaiting result of trial by general court-martial; leaving 175 medical officers and 2 medical store-keepers for duty.

This large number of disabled officers seriously embarrasses the efficiency of the department. Five important military posts in the immediate vicinity of Eastern cities are without medical officers, and at some large military posts in the West, where there should be two or more, but one is stationed; the benefits arising from the intelligent supervision by trained military sanitarians of the hygiene of the post, and the health of the soldier are thus lost to the service at many stations, and at others the duties imposed upon a single officer are such that assistance is required. To meet these deficiencies the necessary professional service is procured by the employment of citizen practitioners by the visit, but where this is not practicable, physicians willing to abandon their practice are employed by contract.

As stated in my last report, this is an expensive and unsatisfactory procedure, which can be remedied in part by legislation and in part by the retirement of those officers who have been found by retiring boards incapacitated for active service, and whose places could be filled by young and active men.

I therefore recommend their retirement as vacancies occur, and renew my recommendation of last year for an increase of 20 assistant surgeons, believing that with this addition to the present force the requirements of the service can be met.

JNO. MOORE,
Surgeon-General, U. S. Army.

Hon. WILLIAM C. ENDICOTT,
Secretary of War.

*Table showing the number and classified causes of all admissions to sick report, deaths, and discharges occurring in the **Whole Army** during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each.*

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength.			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	75,514	12.9	5,839	65	66	8.68	244.91	2.47	2.50
Veneral diseases ..	44,575	25.1	1,773	.....	104	5.12	74.37	.....	3.94
Diseases of the respiratory system	29,573	10.8	2,735	42	73	3.40	114.72	1.59	2.77
Diseases of the digestive system	28,086	7.8	3,597	11	43	3.23	150.87	.42	1.71
Constitutional diseases	26,010	25.6	1,018	6	73	2.99	42.70	.23	2.77
Malarial diseases	26,007	10.6	2,446	9	2	2.99	102.60	.34	.08
Diseases of the integumentary system	19,570	10.3	1,894	.....	5	2.25	79.44	.....	.19
Diseases of the nervous system	18,034	11.0	1,640	17	111	2.07	68.79	.64	4.21
Diarrhoeal diseases ..	17,946	5.4	3,307	8	11	2.06	138.71	.30	.43
Diseases of the locomotor system	17,196	13.9	1,237	.....	58	1.98	51.88	.....	2.20
Specific febrile and acute infectious diseases	12,396	23.4	523	18	.....	1.42	21.94	.68	.....
Diseases of the genito-urinary system (non-veneral)	11,850	28.7	413	6	42	1.36	17.32	.23	1.59
Diseases of the eye	9,431	17.4	513	.....	30	1.08	22.78	.....	1.14
Zoögenous diseases ..	6,995	11.7	598	.....	.....	.80	25.08	.....	.....
Diseases of the circulatory system	6,609	36.9	179	17	45	.76	7.51	.64	1.71
Diseases of the lymphatic system	4,894	31.0	158	.....	2	.56	6.63	.....	.08
Dietic diseases	4,306	3.8	1,122	4	5	.50	47.06	.15	.19
Diseases of the ear	2,427	15.7	155	.....	12	.28	6.50	.....	.46
Septic diseases	1,323	25.0	53	5	1	.15	2.22	.19	.04
Typho malarial fever ..	815	51.3	15	4	.....	.09	.63	.15	.....
Diseases of the nose ..	782	18.6	43	.....	4	.09	1.76	.....	.15
Parasitic diseases	592	7.6	78	.....	.....	.07	3.27	.....	.....
Developmental diseases	510	42.5	12	1	22	.06	.50	.04	.83
Unclassified diseases ..	3,313	9.5	350	1	3	.38	14.68	.04	.11
Total	368,754	12.4	39,727	214	714	42.38	1,246.88	8.12	27.08

* Based on a mean strength of 23,841, as shown by reports of the Medical Department.

† Based on a mean strength of 26,365, as shown by returns of the Adjutant-General; see page 671.

Table showing the number and classified causes of all admissions to sick report, deaths, and discharges occurring among **White Troops** during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each.

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength.			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries	67,147	13.0	5,162	58	59	8.52	238.97	2.42	2.47
Veneral diseases	38,919	25.0	1,558	.....	93	4.94	72.13	.....	3.89
Diseases of the digestive system	25,934	8.1	3,197	9	44	3.29	148.00	.38	1.84
Diseases of the respiratory system	25,871	10.8	2,389	34	64	3.28	110.60	1.42	2.67
Malarial diseases	23,093	10.5	2,191	8	2	2.93	101.43	.33	.08
Constitutional diseases	22,717	26.8	849	4	62	2.88	39.30	.17	2.59
Diseases of the integumentary system	18,088	10.2	1,768	.....	5	2.29	81.85	.....	.21
Diseases of the nervous system	16,327	11.4	1,435	16	98	2.07	66.43	.67	4.09
Diarrhoeal diseases	16,219	5.4	3,017	7	10	2.06	139.67	.29	.42
Diseases of the locomotor system	15,795	14.2	1,109	.....	53	2.00	51.34	.....	2.21
Diseases of the genito-urinary system (non venereal)	11,040	30.2	366	5	36	1.40	16.94	.21	1.50
Specific febrile and acute infectious diseases	11,038	24.7	447	16	.....	1.40	20.69	.67	.....
Diseases of the eye	8,408	17.5	481	.....	26	1.07	22.27	.....	1.09
Zoögenous diseases	6,483	12.0	539	.....	.....	.82	24.95	.....	.....
Diseases of the circulatory system	6,231	37.8	165	17	40	.79	7.64	1.71	1.67
Dietic diseases	4,288	3.8	1,117	4	5	.54	51.71	.17	.21
Diseases of the lymphatic system	4,135	30.0	138	.....	2	.52	6.39	.....	.08
Diseases of the ear	2,376	15.9	149	.....	12	.30	6.90	.....	.50
Septic diseases	1,254	23.6	49	5	1	.16	2.27	.21	.04
Diseases of the nose	731	19.2	38	.....	3	.09	1.76	.....	.13
Typho-malarial fever	673	51.8	13	3	.....	.00	.60	.13	.....
Parasitic diseases	592	7.6	78	.....	.....	.08	3.61	.....	.....
Developmental diseases	493	44.8	11	1	20	.06	.51	.04	.84
Unclassified diseases	3,234	9.7	334	1	2	.41	15.47	.04	.08
Total	331,086	12.4	26,600	188	637	41.99	1,231.42	7.85	26.61

* Based on a mean strength of 21,601, as shown by reports of the Medical Department.

† Based on a mean strength of 23,637, as shown by returns of the Adjutant-General; see page 671.

Table showing the number and classified causes of all admissions to Sick report, deaths, and discharges occurring among **Colored Troops** during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each.

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength,			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges	Men constantly non-effective.	Admissions to sick report.*	D'ths.	Discharges
Injuries	8,367	12.4	677	7	7	10.23	302.23	2.88	2.88
Veneral diseases.....	5,656	26.3	215	.....	11	6.92	93.98	.....	4.53
Diseases of the respiratory system.....	3,703	10.7	346	8	9	4.53	154.46	3.20	3.71
Constitutional diseases.....	3,293	19.5	169	2	11	4.03	75.45	.42	4.53
Malarial diseases.....	2,914	11.4	255	1	.....	3.56	113.84	.41	.....
Diseases of the digestive system.....	2,132	5.4	400	2	1	2.63	178.57	.82	.41
Diarrhœal diseases.....	1,727	6.0	290	1	.....	2.11	129.46	.41	.41
Diseases of the nervous system.....	1,707	8.3	205	1	13	2.09	91.52	.41	5.33
Diseases of the integumentary system.....	1,482	11.8	126	.....	.....	1.81	56.25	.....	.....
Diseases of the locomotor system.....	1,401	10.9	128	.....	5	1.71	57.14	.....	2.06
Specific febrile and acute infectious diseases.....	1,358	17.9	76	2	.....	1.66	33.93	.82	.....
Diseases of the eye.....	1,023	16.5	62	.....	4	1.25	27.68	.....	1.65
Diseases of the genito-urinary system (non-venereal).....	810	17.2	47	1	6	.99	20.98	.41	2.47
Diseases of the lymphatic system.....	759	27.9	20	.....	.....	.93	8.93	.....	.....
Zoögenous diseases.....	512	8.7	59	.....	.....	.63	26.34	.....	.....
Diseases of the circulatory system.....	378	27.0	14	.....	5	.46	6.25	.....	2.06
Typho-malarial fever.....	142	71.0	2	1	.....	.17	.80	.41	.....
Septic diseases.....	69	17.2	4	.....	.....	.08	1.79	.....	.....
Diseases of the ear.....	51	8.5	6	.....	.....	.06	2.68	.....	.....
Diseases of the nose.....	51	12.7	4	.....	1	.06	1.79	.....	.41
Dietic diseases.....	18	3.6	5	.....	.....	.02	2.23	.....	.....
Developmental diseases.....	17	17.0	1	.....	2	.01	.45	.....	.83
Unclassified diseases.....	79	4.9	16	.....	1	.10	7.14	.....	.41
Total	37,668	12.0	3,127	26	77	46.07	1,395.98	10.71	31.71

*Based on a mean strength of 2,210, as shown by reports of the Medical Department.

†Based on a mean strength of 2,428, as shown by returns of the Adjutant-General; see page 671.

Table showing, for the different **Arms and Departments** of the service, the mean strength of each; the ratios of admissions to sick report, constant non-effectiveness, deaths, and discharges; and the average sick time for each man in service, and for each case reported.

Arms of service.	Mean strength.	Ratios per 1,000 of mean strength.				Average sick time.	
		Admissions.	Men constantly non-effective.	Deaths.	Discharges for disability.	For each man in service (days).	For each case reported (days).
Officers	2,163	628.42	43.28	9.3	†	12.6	26.3
Infantry.....	860	777.91	53.82	8.1	†	15.5	26.2
Cavalry.....	430	792.05	57.26	4.7	†	15.9	26.4
Artillery.....	278	716.98	40.50	18.0	†	11.8	20.6
Engineers.....	110	132.42	12.39	0.1	†	3.6	31.7
Ordnance.....	50	244.44	9.01		†	2.5	13.5
General officers and commissioned staff corps.....	416	271.30	27.98	12.0		7.8	37.6
Enlisted men	24,203	1,292.78	42.16	8.0	29.5	14.1	11.9
Infantry.....	10,897	1,251.70	40.63	8.2	30.5	13.6	11.8
Cavalry.....	6,772	1,350.40	45.42	5.8	35.3	13.2	12.3
Artillery.....	2,575	1,316.82	37.03	7.4	26.8	12.4	10.3
Engineers.....	407	2,546.92	50.55	7.4	44.2	19.0	4.5
Ordnance.....	415	1,380.58	38.43	7.2	19.3	12.9	10.2
Recruits at depots.....	1,821	1,725.14	67.15	14.3	23.1	22.5	11.2
All others.....	1,316	275.49	9.41	10.6	4.6	3.1	12.4
Officers and enlisted men	26,365	1,216.88	42.38	8.1	27.1	14.0	12.4

* As shown by returns of Adjutant-General. † Based on mean strength reported by medical officers.
‡ Based on mean strength shown by returns of the Adjutant-General; see page 671.

Table showing, for men of different Ages, the mean strength of each group; the ratios of admission to sick report, constant non-effectiveness, deaths, and discharges; and the average sick time for each man in service, and for each case reported.

Groups of ages.	Mean strength.	Ratios per 1,000 of mean strength.				Average sick time.	
		Admissions.	Men constantly non-effective.	Deaths.	Discharges for disability.	For each man in service (days).	For each case reported (days).
Officers	2,162	628.42	45.28	9.3		12.6	26.3
Under sixteen years							
Sixteen to twenty years							
Twenty-one to twenty-five years	125	715.79	45.91	8.0		12.7	23.4
Twenty-six to thirty years	305	673.81	35.77			10.0	19.4
Thirty-one to thirty-five years	335	686.27	35.71	6.0		9.9	19.0
Thirty-six to forty years	268	691.17	64.36	7.5		18.0	34.0
Forty-one to forty-five years	304	762.93	75.40	10.4		21.0	36.1
Forty-six to fifty years	370	663.11	50.10	18.9		24.0	27.6
Fifty-one to fifty-five years	242	380.44	25.88	8.3		7.2	24.8
Fifty-six to sixty years	146	423.42	23.07			6.4	19.9
Over sixty years	67	254.90	13.27	14.9		3.7	19.0
Enlisted men	24,203	1,392.78	42.16	8.0	29.5	14.1	11.9
Under sixteen years							
Sixteen to twenty years	190	1,994.50	52.39	85.4	266.3	17.5	9.6
Twenty-one to twenty-five years	7,523	1,673.42	54.24	7.6	35.2	18.2	11.8
Twenty-six to thirty years	7,426	1,179.41	37.53	3.8	23.4	12.6	11.6
Thirty-one to thirty-five years	3,829	1,076.05	34.61	8.0	21.4	11.6	11.7
Thirty-six to forty years	2,659	1,078.75	35.12	9.8	20.7	11.8	11.9
Forty-one to forty-five years	1,609	907.80	30.47	11.8	26.7	10.2	12.3
Forty-six to fifty years	664	1,082.24	43.23	13.6	34.6	14.5	14.6
Fifty-one to fifty-five years	226	1,164.29	59.51	8.8	70.8	19.9	16.7
Fifty-six to sixty years	52	1,916.67	74.94	19.2	38.5	25.2	14.3
Over sixty years	16	496.67	126.76	62.5	62.5	43.4	99.1
Officers and enlisted men	26,365	1,246.88	42.38	8.1	27.1	14.0	12.4

*As shown by returns of Adjutant-General. †Based on mean strength reported by medical officers.
 ‡Based on mean strength shown by returns of the Adjutant-General; see page 671.

Table showing the number and classified causes of all admissions to sick report, deaths, and discharges occurring among **White Troops** during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000 of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each.

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength.			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.	D'ths.	Discharges.
Injuries.....	67,147	13.0	5,162	58	50	8.52	233.97	2.42	2.47
Veneral diseases.....	38,919	25.0	1,558	.....	93	4.94	72.13	.....	2.39
Diseases of the digestive system.....	25,934	8.1	3,197	9	44	3.29	148.00	.38	1.84
Diseases of the respiratory system.....	25,871	10.8	2,389	24	64	3.28	110.60	1.42	2.67
Malarial diseases.....	23,093	10.5	2,191	8	2	2.93	101.43	.33	.08
Constitutional diseases.....	22,717	26.8	849	4	62	2.88	39.30	.17	2.59
Diseases of the integumentary system.....	18,068	10.2	1,768	.....	5	2.29	81.85	.....	.21
Diseases of the nervous system.....	16,327	11.4	1,435	16	98	2.07	68.43	.67	4.09
Diarrhoeal diseases.....	16,219	5.4	3,017	7	10	2.06	139.67	.29	.42
Diseases of the locomotor system.....	15,796	14.2	1,109	.....	53	2.00	51.34	.....	2.21
Diseases of the genito-urinary system (non venereal).....	11,040	30.2	366	5	36	1.40	16.94	.21	1.50
Specific febrile and acute infectious diseases.....	11,038	24.7	447	16	.....	1.40	20.00	.67	.....
Diseases of the eye.....	8,408	17.5	481	.....	26	1.07	22.27	.....	1.00
Zoögenous diseases.....	6,483	12.0	539	.....	.....	.82	24.95	.....	.....
Diseases of the circulatory system.....	6,231	37.8	165	17	40	.79	7.64	1.71	1.67
Dietic diseases.....	4,288	3.8	1,117	4	5	.54	51.71	.17	.21
Diseases of the lymphatic system.....	4,135	30.0	138	.....	2	.52	6.39	.....	.06
Diseases of the ear.....	2,376	15.9	149	.....	12	.30	6.90	.....	.50
Septic diseases.....	1,254	25.6	49	5	1	.16	2.27	.21	.04
Diseases of the nose.....	731	19.2	38	.....	3	.09	1.76	.....	.13
Typho-malarial fever.....	673	51.8	13	3	.....	.09	.60	.13	.....
Parasitic diseases.....	592	7.6	78	.....	.....	.08	3.61	.....	.....
Developmental diseases.....	493	44.8	11	1	20	.06	.51	.04	.84
Unclassified diseases.....	3,234	9.7	334	1	2	.41	15.47	.04	.08
Total.....	331,086	12.4	26,600	188	637	41.99	1,231.42	7.85	26.61

* Based on a mean strength of 21,601, as shown by reports of the Medical Department.

† Based on a mean strength of 23,637, as shown by returns of the Adjutant-General; see page 671.

Table showing the number and classified causes of all admissions to Sick report, deaths, and discharges occurring among **Colored Troops** during the year; the aggregate loss of time for each of the classified causes; the average loss of time for each admission; and the ratios, per 1,000[†] of mean strength, of admissions, constant non-effectiveness, discharges, and deaths. The causes of admission to sick report are arranged in the table in the order of their relative importance as determined by the degree of impairment of force produced by each.

Classified causes.	Time lost.		Number of—			Ratios per 1,000 of mean strength,			
	Aggregate for all cases (days).	Average for each case (days).	Admissions to sick report.	D'ths.	Discharges.	Men constantly non-effective.	Admissions to sick report.*	D'ths.	Discharges.
Injuries	8,367	12.4	677	7	7	10.23	302.23	2.88	2.88
Veneral diseases....	5,656	20.3	215	.....	11	6.92	93.98	.....	4.53
Diseases of the respiratory system	3,702	10.7	346	8	9	4.53	154.46	3.20	3.71
Constitutional diseases	3,293	19.5	169	2	11	4.03	75.45	.82	4.53
Malarial diseases....	2,914	11.4	255	1	.....	3.56	112.84	.41	.....
Diseases of the digestive system	2,152	5.4	400	2	1	2.63	178.57	.82	.41
Diarrhœal diseases....	1,727	6.0	290	1	1	2.11	129.46	.41	.41
Diseases of the nervous system	1,707	8.3	205	1	13	2.09	91.52	.41	5.35
Diseases of the integumentary system	1,482	11.8	126	.....	.....	1.81	56.25	.....	.....
Diseases of the locomotor system	1,401	10.9	128	.....	5	1.71	57.14	.....	2.06
Specific febrile and acute infectious diseases	1,358	17.9	76	2	.....	1.66	33.93	.82	.....
Diseases of the eye	1,023	16.5	62	.....	4	1.25	27.68	.....	1.65
Diseases of the genitourinary system (non-venereal)	810	17.2	47	1	6	.99	20.98	.41	2.47
Diseases of the lymphatic system	759	37.0	20	.....	.....	.93	8.93	.....	.....
Zoögenous diseases	512	8.7	59	.....	.....	.63	26.34	.....	.....
Diseases of the circulatory system	378	27.0	14	.....	5	.46	6.25	.....	2.06
Typho-malarial fever	142	71.0	2	1	.....	.17	.89	.41	.....
Septic diseases	69	17.2	4	.....	.....	.08	1.79	.....	.....
Diseases of the ear	51	8.5	6	.....	.....	.06	2.68	.....	.....
Diseases of the nose	51	12.7	4	.....	1	.06	1.79	.....	.41
Dietic diseases	18	3.6	5	.....	.....	.02	2.23	.....	.....
Developmental diseases	17	17.0	1	.....	2	.02	.45	.....	.83
Unclassified diseases	79	4.9	16	.....	1	.10	7.14	.....	.41
Total	37,668	12.0	3,127	26	77	46.07	1,395.98	10.71	31.71

*Based on a mean strength of 2,210, as shown by reports of the Medical Department.

†Based on a mean strength of 2,428, as shown by returns of the Adjutant-General; see page 671.

Table showing, for the different Arms and Departments of the service, the mean strength of each; the ratios of admissions to sick report, constant non-effectiveness, deaths, and discharges; and the average sick time for each man in service, and for each case reported.

Arms of service.	Mean strength.	Ratios per 1,000 of mean strength.				Average sick time.	
		Admissions.	Men constantly non-effective.	Deaths.	Discharges for disability.	For each man in service (days).	For each case reported (days).
Meers	2,162	628.42	43.28	9.3	3	12.6	26.3
Infantry	869	777.94	55.82	8.1	.....	15.5	28.2
Cavalry	430	792.05	57.26	4.7	.....	15.9	26.4
Artillery	278	716.98	40.50	18.0	.....	11.3	20.6
Engineers	110	132.42	12.39	9.1	.....	3.6	31.7
Ordnance	59	244.44	9.01	.....	.....	2.5	13.5
General officers and commissioned staff corps	416	271.30	27.98	12.0	.....	7.8	37.6
Enlisted men	24,203	1,292.78	42.16	8.0	29.5	14.1	11.9
Infantry	10,897	1,251.70	40.63	8.2	30.5	13.6	11.8
Cavalry	6,772	1,350.40	45.42	5.8	35.3	15.2	12.3
Artillery	2,575	1,316.82	37.03	7.4	26.8	12.4	10.3
Engineers	407	2,546.92	59.55	7.4	44.2	19.9	4.5
Ordnance	415	1,380.58	38.43	7.2	19.3	12.9	10.2
Recruits at depots ..	1,821	1,725.14	67.15	14.3	23.1	22.5	14.2
All others	1,316	275.89	9.41	10.6	4.6	3.1	12.4
Meers and enlisted men	26,365	1,246.88	42.38	8.1	27.1	14.0	12.4

As shown by returns of Adjutant-General. † Based on mean strength reported by medical officers. Based on mean strength shown by returns of the Adjutant-General; see page 671.

Table showing, for men of different Ages, the mean strength of each group; the ratios of admission to sick report, constant non-effectiveness, deaths, and discharges; and the average sick time for each man in service, and for each case reported.

Groups of ages.	Mean strength.	Ratios per 1,000 of mean strength.				Average sick time.	
		Admissions.	Men constantly non-effective.	Deaths.	Discharges for disability.	For each man in service (days).	For each case reported (days).
Officers.....	2,162	628.49	45.28	9.3	12.6	12.6	26.3
Under sixteen years.....							
Sixteen to twenty years.....							
Twenty-one to twenty-five years.....	125	715.79	45.91	8.0		12.7	23.4
Twenty-six to thirty years.....	305	673.81	35.77			10.0	19.4
Thirty-one to thirty-five years.....	335	696.27	35.71	6.0		9.9	19.0
Thirty-six to forty years.....	268	691.17	64.36	7.5		18.0	34.0
Forty-one to forty-five years.....	304	762.93	75.40	10.4		21.0	36.1
Forty-six to fifty years.....	370	663.11	50.10	18.9		24.0	27.6
Fifty-one to fifty-five years.....	242	380.44	25.88	8.3		7.2	24.8
Fifty-six to sixty years.....	146	423.42	23.07			6.4	19.9
Over sixty years.....	67	254.90	13.27	14.9		3.7	10.0
Enlisted men.....	24,203	1,992.78	42.16	8.0	29.5	14.1	11.9
Under sixteen years.....	190	1,994.50	52.39	83.4	266.3	17.5	9.6
Sixteen to twenty years.....							
Twenty-one to twenty-five years.....	7,523	1,673.42	54.24	7.6	35.2	18.2	11.8
Twenty-six to thirty years.....	7,426	1,179.41	37.53	3.8	23.4	12.6	11.6
Thirty-one to thirty-five years.....	3,829	1,076.05	34.61	8.9	21.4	11.6	11.7
Thirty-six to forty years.....	2,659	1,078.75	35.12	9.8	20.7	11.8	11.9
Forty-one to forty-five years.....	1,609	907.80	30.47	11.8	26.7	10.2	12.3
Forty-six to fifty years.....	664	1,082.24	43.23	13.6	34.6	14.5	14.6
Fifty-one to fifty-five years.....	226	1,164.29	50.51	8.8	70.8	19.9	18.7
Fifty-six to sixty years.....	52	1,916.67	74.94	19.2	38.5	25.2	14.3
Over sixty years.....	16	406.67	126.76	62.5	62.5	43.4	99.1
Officers and enlisted men.....	26,365	1,246.88	42.38	8.1	27.1	14.0	12.4

*As shown by returns of Adjutant-General. †Based on mean strength reported by medical officers.
 ‡Based on mean strength shown by returns of the Adjutant-General; see page 671.

Table showing, for **Various Armies**, the ratios, per 1,000 of mean strength, of admissions to sick report, deaths, and discharges—Continued.

Classified causes of admissions, deaths and discharges.	France, 1884.			Great Britain (home and colonial), 1883.		
	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Specific febrile and acute infectious diseases	20.38	3.02	.....	18.22	3.67	.02
Malarial diseases	21.02	.18	.02	148.43	.25	.02
Typho-malarial fever	.....	.....	.....	.02	.....	.....
Diarrhœal diseases	(b)	.22	.01	42.10	.56	.01
Septic diseases	(c)	.09	.01	2.23	.01	.02
Veneral diseases	52.16	.01	.03	286.63	.02	.48
Zoogenous diseases	.01	.01	.....	.07	.01	.....
Dietic diseases	.31	.03	.....	5.67	.29	.....
Constitutional diseases	25.96	.14	.63	49.05	.22	.85
Developmental diseases	(d)	.....	.....	.....	.....	.....
Parasitic diseases	(e)	.....	.....	(h)	.....	.....
Diseases of the nervous system	6.14	.44	1.07	14.84	.75	2.91
Diseases of the eye	9.16	.....	1.85	17.05	.....	.84
Diseases of the ear	4.83	.01	.68	9.98	.....	.75
Diseases of the nose	(f)	.....	.....	.59	.....	.01
Diseases of the respiratory system	58.53	2.04	4.66	58.62	2.49	3.42
Diseases of the circulatory system	10.70	.14	2.10	11.67	.47	3.49
Diseases of the digestive system	131.58	.27	.84	108.35	.95	1.31
Diseases of the lymphatic system	(g)	.02	.16	16.85	.01	.10
Diseases of the genito-urinary system (non-veneral)	14.08	.09	.45	24.45	.16	.53
Diseases of the locomotor system	20.23	.07	1.37	6.34	.03	.89
Diseases of the integumentary system	50.71	.03	.53	113.02	.02	.36
All other diseases	10.11	.02	.70	83.44	.17	1.97
Injuries	47.40	.78	1.26	113.45	1.35	1.30
Total	1,153.39	7.64	16.37	1,131.38	11.44	19.28

REMARKS: * France.—Including cases treated in quarters (diseases not given) the admission rate is 2,107.09 per 1,000 of mean strength. a Exclusive of mumps and diphtheria entered under diseases of the digestive system. b Entered under diseases of the digestive system. c Entered under constitutional diseases and diseases of the integumentary system. d Entered under constitutional diseases. e Entered under diseases of the digestive and integumentary systems. f Entered under diseases of the respiratory system. g Entered under diseases of the circulatory system. Great Britain.—A Scabies included under diseases of the integumentary system.

Table showing, for **Various Armies**, the ratios, per 1,000 of mean strength, of admissions to sick report, deaths, and discharges—Continued.

Classified causes of admissions, deaths, and discharges.	Italy, 1885.			Prussia and Württemberg, 1881-'82.		
	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Specific febrile and acute infectious diseases	20.07	3.20	.05	9.88	.71	.04
Malarial diseases	24.18	.18	.29	19.46		
Typho-malarial fever						
Diarrheal diseases	7.63	.01		14.94	.10	
Septic diseases	3.82	.09		2.51	.04	
Veneral diseases	49.52		.04	40.96	.02	.06
Zoogenous diseases	.09	.01		.42	.01	
Dietic diseases	.82	.01	.02	.52	.04	
Constitutional diseases	12.07	.29	1.47	16.87	.06	.70
Developmental diseases		.01	.16	.02	.21	.34
Parasitic diseases	.21			0.86		
Diseases of the nervous system	6.11	.08	1.41	3.88	.23	2.23
Diseases of the eye	16.46		.97	24.09		2.87
Diseases of the ear	5.20	.01	.21	9.09	.03	2.73
Diseases of the nose	.16		.07	(a)	.01	.03
Diseases of the respiratory system	53.98	3.87	3.72	57.93	1.46	5.09
Diseases of the circulatory system	1.21	.13	.98	1.79	.08	2.05
Diseases of the digestive system	41.54	.62	2.78	85.71	.18	3.74
Diseases of the lymphatic system	6.82	.01	.22	8.16	.01	.29
Diseases of the genito-urinary system (non-venereal)	4.79	.03	.29	6.97	.09	.53
Diseases of the locomotor system	9.08	.09	1.02	26.83	.05	4.36
Diseases of the integumentary system	24.30	.07	.17	120.68	.02	1.87
All other diseases	60.30	.15	.05	7.88		.50
Injuries	16.49	.83	.21	106.90	1.12	.65
Total	*364.83	10.31	14.13	†573.35	4.54	27.29

REMARKS: **Italy*.—Including cases treated in quarters and civilian hospitals (diseases not given), the admission rate is 791.83 per 1,000 of mean strength. †*Prussia and Württemberg*.—Including all patients who were excused from any portion of their military duty, the admission rate is 1,134.95 per 1,000 of mean strength. a Entered under diseases of the respiratory system.

Table showing, for Various Armies, the ratios, per 1,000 of mean strength, of admissions to sick report, deaths, and discharges.

Classified causes of admissions, deaths, and discharges.	United States, 1857.			United States, 1876-'85.		
	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
<i>Specific febrile and acute infectious diseases.</i>						
Malarial diseases	21.94	.66	.....	25.39	.89	.....
Typho-malarial fever	192.61	.84	.08	202.77	.29	.....
Typhoid fever	.63	.15	.....	2.78	.28	.....
Diarrhoal diseases	138.71	.30	.42	215.73	.37	.....
Septic diseases	2.22	.19	.04	3.14	.07	.....
Veneral diseases	74.37	.....	3.94	90.32	.04	.....
Zoogenous diseases	25.04	.....	.....	5.63	.084	.....
Dietic diseases	47.06	.15	.19	62.11	.26	.....
Constitutional diseases	88.71	.23	3.38	129.84	.83	.....
Developmental diseases	.50	.04	.83	.....	.....	.....
Parasitic diseases	3.27	.....	.....	3.00	.....	.....
Diseases of the nervous system	68.79	.64	4.21	116.46	.50	.....
Diseases of the eye	22.78	.....	1.14	25.43	.....	.....
Diseases of the ear	6.50	.....	.46	8.34	.01	.....
Diseases of the nose	1.76	.....	.15	.....	.....	.....
Diseases of the respiratory system	114.72	1.89	2.77	210.29	1.05	.....
Diseases of the circulatory system	7.51	.64	1.71	7.60	.61	.....
Diseases of the digestive system	150.87	.42	1.71	181.00	.50	.....
Diseases of the lymphatic system	6.63	.....	.06	.....	.....	.....
Diseases of the genito-urinary system (non-veneral)	17.32	.23	1.59	15.98	.24	.....
Diseases of the locomotor system §	5.87	.....	1.50	4.49	.03	.....
Diseases of the integumentary system	79.44	.....	.19	110.71	.....	.....
All other diseases	14.68	.04	.11	4.85	.04	.....
Injuries	244.91	2.47	2.50	243.64	5.02	.....
Total	1,246.88	8.12	27.08	1,672.15	11.34	31.96

* Based on mean strength reported by medical officers. † Based on mean strength shown by returns of the Adjutant-General. (see page 61). ‡ Including muscular rheumatism. § Excluding muscular rheumatism.

Table showing, for **Various Armies**, the ratios per 1,000 of mean strength, of admissions to sick report, deaths, and discharges—Continued.

Classified causes of admissions, deaths, and discharges.	Austria-Hungary, 1886.			Belgium, 1886.		
	Admissions.*	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Specific febrile and acute infectious diseases	10.13	1.36	.09	10.20	1.15	.....
Malarial diseases	43.06	.01	.11	.63	.....	.02
Typho-malarial fever	.....	.....	.....	.....	.....	.....
Diarrheal diseases	65.50	.07	.....	.67	.....	.....
Septic diseases	1.29	.06	.....	3.32	.....	.....
Venereal diseases	65.80	.01	.07	45.14	.....	.....
Zoögenous diseases	.05	.01	.....	1.15	.06	.....
Dietic diseases	1.92	.01	.02	.53	.04	.....
Constitutional diseases	19.28	.34	1.82	29.50	.08	.57
Developmental diseases	.01	.01	.14	.59	.02	1.07
Parasitic diseases	5.78	.....	.....	.51	.....	.....
Diseases of the nervous system	7.11	.39	1.61	10.66	.22	.75
Diseases of the eye	54.90	.....	5.25	28.81	.....	.69
Diseases of the ear	14.19	.....	3.55	8.90	.....	.39
Diseases of the nose	.19	.....	.01	.61	.....	.02
Diseases of the respiratory system	150.68	2.20	5.45	37.14	1.46	1.32
Diseases of the circulatory system	19.89	.16	2.85	5.02	.14	.99
Diseases of the digestive system	178.17	.36	6.75	60.72	.20	1.32
Diseases of lymphatic system	8.27	.01	1.54	5.68	.06	.02
Diseases of the genito-urinary system (non-venereal)	16.50	.14	1.37	5.40	.06	.22
Diseases of the locomotor system	44.78	.09	5.03	5.44	.04	.45
Diseases of the integumentary system	218.35	.07	1.27	36.42	.02	.34
All other diseases	20.36	.....	8.17	9.69	.83	.44
Injuries	147.29	1.94	2.94	42.53	.74	.31
Total	1,095.49	7.24	48.04	349.26	5.12	8.95

REMARKS: * *Austria*.—Including patients remaining from 1885. † *Belgium*.—Including cases treated in quarters (diseases not given), the admission rate is 1,520.56 per 1,000 of mean strength.

Table showing, for Various Armies, the ratios, per 1,000 of mean strength, of admissions to sick report, deaths, and discharges—Continued.

Classified causes of admissions, deaths and discharges.	France, 1884.			Great Britain (home and colonial), 1885.		
	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Specific febrile and acute infectious diseases	20.38	3.02		18.22	3.67	.02
Malarial diseases	21.02	.18	.02	148.43	.25	.01
Typho-malarial fever				.03		
Diarrhoeal diseases	(b)	.22	.01	42.10	.56	.01
Septic diseases	(c)	.09	.01	2.23	.01	.02
Veneral diseases	52.16	.01	.03	286.63	.02	.48
Zoögenous diseases	.01	.01		.07	.01	
Dietic diseases	.31	.03		5.67	.20	
Constitutional diseases	25.96	.14	.63	49.05	.22	.85
Developmental diseases	(d)					
Parasitic diseases	(e)			(A)		
Diseases of the nervous system	8.14	.44	1.07	14.81	.75	3.91
Diseases of the eye	9.16		1.85	17.05		.84
Diseases of the ear	4.82	.01	.68	9.98		.75
Diseases of the nose	(f)			.50		.01
Diseases of the respiratory system	58.53	2.04	4.66	58.02	2.49	3.47
Diseases of the circulatory system	10.70	.14	2.10	11.67	.47	3.49
Diseases of the digestive system	131.58	.27	.84	108.35	.95	1.31
Diseases of the lymphatic system	(g)	.02	.16	16.85	.01	.10
Diseases of the genito-urinary system (non-veneral)	14.08	.09	.45	24.45	.16	.53
Diseases of the locomotor system	20.23	.07	1.37	6.34	.03	.89
Diseases of the integumentary system	50.71	.05	.53	111.62	.62	.36
All other diseases	10.11	.02	.70	83.44	.17	1.97
Injuries	47.49	.78	1.26	113.45	1.35	1.30
Total	483.39	7.64	16.37	1,131.38	11.44	19.28

REMARKS: * France.—Including cases treated in quarters (diseases not given) the admission rate is 2,107.09 per 1,000 of mean strength. a Exclusive of mumps and diphtheria entered under diseases of the digestive system. b Entered under diseases of the digestive system. c Entered under constitutional diseases and diseases of the integumentary system. d Entered under constitutional diseases. e Entered under diseases of the digestive and integumentary systems. f Entered under diseases of the respiratory system. g Entered under diseases of the circulatory system. Great Britain.—h Scabies included under diseases of the integumentary system.

Table showing, for **Various Armies**, the ratios, per 1,000 of mean strength, of admissions to sick report, deaths, and discharges—Continued.

Classified causes of admissions, deaths, and discharges.	Italy, 1885.			Prussia and Württemberg, 1881-'82.		
	Admissions.	Deaths.	Discharges.	Admissions.	Deaths.	Discharges.
Specific febrile and acute infectious diseases.....	20.07	3.20	.05	9.88	.71	.04
Malarial diseases.....	24.18	.18	.29	19.46		
Typho-malarial fever.....						
Diarrheal diseases.....	7.63	.01		14.94	.10	
Septic diseases.....	3.82	.09		2.51	.04	
Venereal diseases.....	49.52		.04	40.96	.02	.08
Zoögenous diseases.....	.09	.01		.42	.01	
Dietic diseases.....	.82	.01	.02	.52	.04	
Constitutional diseases.....	12.07	.29	1.47	16.87	.06	.70
Developmental diseases.....		.01	.16	.02	.21	.34
Parasitic diseases.....	.21			6.86		
Diseases of the nervous system.....	0.11	.68	1.41	3.88	.23	2.23
Diseases of the eye.....	16.46		.97	23.09		2.87
Diseases of the ear.....	5.20	.01	.21	9.09	.03	2.73
Diseases of the nose.....	.16		.07	(a)	.01	.03
Diseases of the respiratory system.....	53.98	3.87	3.72	57.93	1.46	5.09
Diseases of the circulatory system.....	1.21	.13	.98	1.79	.08	2.05
Diseases of the digestive system.....	41.54	.62	2.78	85.71	.18	3.74
Diseases of the lymphatic system.....	6.82	.01	.22	8.16	.01	.29
Diseases of the genito-urinary system (non-venereal).....	4.79	.05	.29	6.97	.09	.53
Diseases of the locomotor system.....	0.08	.00	1.02	26.83	.05	4.36
Diseases of the integumentary system.....	24.80	.07	.17	120.68	.02	1.67
All other diseases.....	60.30	.15	.05	7.88		.50
Injuries.....	16.49	.83	.21	106.90	1.16	.65
Total.....	*364.83	10.31	14.13	†573.35	4.54	27.29

REMARKS: **Italy*.—Including cases treated in quarters and civilian hospitals (diseases not given), the admission rate is 791.83 per 1,000 of mean strength. †*Prussia and Württemberg*.—Including all patients who were excused from any portion of their military duty, the admission rate is 1,134.95 per 1,000 of mean strength. a Entered under diseases of the respiratory system.

Table showing number of rejections, with causes, and ratios per 1,000, among 17,412 Recruits examined during the year 1887.
 [Total number of recruits examined, 17,412; white, 15,581, colored, 1,831.]

Causes of rejection.	White.				Colored.				Total, white and colored.			
	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000.
Malarial diseases.....	1		1	1	90	2	92	50.3	1	9	10	1
Ethnic diseases.....	368	7	375	24.1	8		8	4.4	438	9	447	28.8
Dietic diseases.....	300	1	301	19.3	3		3	1.6	308	3	309	17.7
Constitutional diseases.....	44	3	47	3.0	8		8	4.4	47	3	50	2.9
Developmental defects.....	466	1	467	30.0	42		42	23.0	508	1	509	29.2
Parasitic diseases.....	37		37	2.4	6		6	3.3	43		43	2.5
Diseases of the nervous system.....	22	6	28	1.8	7	2	9	4.9	29	8	37	2.1
Diseases of the eye.....	1,151	5	1,156	74.2	93		93	50.0	1,244	5	1,249	71.7
Diseases of the ear.....	179	1	180	11.6	10		10	5.5	180	1	180	10.9
Diseases of the nose.....	19		19	1.2	1		1	.5	20		20	1.1
Diseases of the respiratory system.....	390	1	391	25.1	58		58	31.7	448	1	449	25.8
Diseases of the circulatory system.....	703	5	708	51.2	60		60	32.8	763	5	768	43.3
Diseases of the digestive system.....	756	7	763	49.0	72		72	30.4	828	7	835	48.0
Diseases of the lymphatic system.....	61	1	62	4.0	29		29	15.0	90	1	91	5.2
Diseases of the urinary system.....	4	2	6	.4	4		4	2.2	8	2	10	.6
Diseases of the reproductive system.....	625	6	631	40.5	63		63	34.5	688	6	694	39.9
Diseases and injuries of the locomotor system.....	651	2	653	41.9	75		75	41.0	726	2	728	41.8
Diseases of the integumentary system.....	222		222	14.2	15		15	8.2	237		237	13.6
Results of injuries.....	60	3	63	6.5	16		16	8.8	76		76	6.8
General infirmities.....	882		882	50.0	54		54	29.5	936		936	53.8
Over age.....	63		63	4.0	8		8	4.4	71		71	4.1
Under age.....	424		424	27.5	85		85	40.5	513		513	29.5
Over height.....	46		46	3.0	24		24	18.0	80		80	4.8
Under height.....	376		376	24.1	67		67	36.7	443		443	25.4
Over weight.....	58		58	3.7	24		24	13.1	82		82	4.7
Under weight.....	553		553	33.6	41		41	22.4	594		594	32.4
Imperfect knowledge of English.....	134		134	8.6					134		134	7.7
Doubtful character.....	71		71	4.6	31		31	18.0	105		105	6.0
Previously discharged for disability.....	2		2	.1					2		2	.1
Deserter from United States Army.....	2		2	.1					2		2	.1
Deserter from other army.....	2		2	.1					2		2	.1
Fraudulent enlistment.....		2	2	.1						2	2	.1
Unclassified.....	114		114	7.3	31		31	17.0	145		145	8.3
Aggregate.....	8,889	53	8,942	573.8	1,030	4	1,034	505.0	9,919	57	9,976	572.9

NOTE.—Indians are not included in this table; there were 371 examined, of which number 3 were rejected, or 8.1 per 1,000.

Table showing the principal statistics relative to the health of troops serving in Various Regions.

Regions.	* Mean strength.	Including all diseases and injuries.					Excluding injuries, venereal diseases, and alcoholism.						
		Ratios per 1,000 of mean strength.				Prevailing causes of sickness during the year.	Ratios per 1,000 of mean strength.				Period of least sickness.	Period of greatest sickness.	Prevailing diseases during the year.
		Admissions.	Non-effectiveness.	Deaths.	Discharges for disability.		Admissions.	Non-effectiveness.	Deaths.	Discharges.			
Atlantic Coast	2,285	1,394.75	39.27	7.44	27.13	Injuries; diseases of the respiratory system; venereal diseases.	1,016.83	22.27	3.94	21.01	July, Aug., and Dec.	Nov. and Dec.	Respiratory system; digestive system; locomotor system; integumentary system.
Eastern Timbered Plains and Hills.	917	1,427.48	35.11	9.81	16.36	Injuries; venereal diseases; malarial diseases.	1,124.32	23.93	8.72	9.81	Oct., Nov., and May.	Apr. and May.	Malarial; respiratory system; digestive system.
Appalachian ..	68	1,250.00	26.07	44.12	.....	Specific febrile and acute infectious diseases; venereal diseases; diseases of the digestive system.	985.29	19.26	44.12	.....	Dec. and Nov.	May and June.	Specific febrile; digestive system; locomotor system.
Northern Lakes.	1,207	892.29	25.72	9.11	20.71	Injuries; venereal diseases; diseases of the digestive system.	585.75	15.04	3.31	14.91	July and Aug.	Nov. and Dec.	Digestive system; respiratory system; nervous system.
Central Timbered Plains and Hills.	1,309	1,944.23	79.07	17.57	29.03	Malarial diseases; venereal diseases; injuries.	1,443.85	57.21	16.04	17.57	Feb., Mar., and Nov.	Oct. and Nov.	Malarial; vaccine; respiratory system; nervous system.
Gulf Coast.....	300	1,210.67	49.50	6.67	63.31	Venereal diseases; injuries; malarial diseases.	806.67	32.80	3.33	23.33	Apr. and Oct.	Jan., Feb., and Mar.	Malarial; circulatory system; integumentary system; rheumatism.
Prairies	4,045	1,343.63	45.19	5.45	25.71	Injuries; venereal diseases; malarial diseases.	964.05	29.79	3.46	19.04	Sept. and Oct.	May and June.	Malarial; digestive system; rheumatism.
Great Plains...	6,707	1,359.48	39.33	7.45	26.39	Injuries; venereal diseases; diseases of the respiratory system.	829.13	24.67	4.62	20.58	Oct. and Dec.	Nov. and Dec.	Respiratory system; rheumatism; digestive system.

* As shown by reports of medical officers, and used in calculating all ratios, except those of death and discharges for the whole Army.

Table showing the principal statistics relative to the health of troops serving in Various Regions (Continued).

Regions.	Including all diseases and injuries.						Excluding injuries, venereal diseases, and alcoholism.					
	Ratio per 1,000 of mean strength.			Prevailing causes of sickness during the year.			Ratio per 1,000 of mean strength.			Prevailing diseases during the year.		
	Mean strength.	Admissions.	Non-effect losses.	Deaths.	Discharges for disability.	Period of greatest sickness.	Admissions.	Non-effect losses.	Deaths.	Discharges.	Period of greatest sickness.	Period of least sickness.
Cordilleras . . .	5,302	1,157.22	40.72	10.07	32.45	Aug., Sept., and Oct.	501.01	56.77	6.71	34.67	Aug., Sept., and Oct.	Jan. and Feb.
Pacific Coast . .	1,620	801.11	33.77	6.17	33.33	May and June.	567.90	21.00	3.00	15.63	Dec.	May and June.
Whole Army . . .	123,811	1,240.88	42.38	28.12	27.08	Nov. and Dec.	801.29	28.10	15.60	29.48	Aug., Sept., and Oct.	May and June.

* As shown by reports of medical officers, and used in calculating all ratios, except those of death and discharge for the whole Army, including the Army and Navy General Hospital at Hot Springs, Ark., with a mean strength of 21.

† Calculated on a mean strength of 20,305, as shown by returns of the Adjutant General, see page 61.

the mean strength of command, etc.—Continued.

Eastern Tim- bered Plains and Hills.			Kennebec Ar- senal, Me.			Springfield Armory, Mass.			Fort Monroe, Va.			St. Francis Barracks, Fla.			In the field, At- lantic Coast.		
917.			16.			40.			237.			98.			15.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
4	1								21	1							1
19						6			20								2
242	1		1			6			8			33			2		3
184			3			3			55			17			9		4
5									3			3			1		5
									5			2					6
23									4			7					7
33	4					1			6								8
10									2								9
4																	10
34						5			31			19					11
4									19			17					12
81	2		4			3			1		1		2				13
4						1											14
									1								15
4									1								16
50						8			10			9					17
11	2	2	2				1		5		1	1	1				18
17									4								19
4									1								20
49			12			1			10			2					21
109			4						14		1	3					22
6	2																23
4	1	1															24
4			1						1								25
																	26
2									1								27
8	1	1				1					1	1					28
																	29
19			1			1			3			2					30
48			1			2			19			5					31
																	32
57		1	5			1			8			5		1			33
3																	34
																	35
13		1							5			3		1			36
																	37
1		1							11								38
																	39
65			1						21			11			1		40
10			4						19			1			1		41
3																	42
																	43
86						2			27			19					44
2		1							1								45
6																	46
																	47
46						1			16			2			1		48
3																	49
32	1	1	1			2			8	2		3		1			50
1,131	8	13	39			39	1		308	1	4	141		5	14		
178	1	2	1			5			52	2		24		1	1		
1,309	9	15	40			44	1		360	8	4	165		6	15		

Table showing, for each region and each military station therein, the mean strength of command occurring during

Names of regions and military stations.		Atlantic Coast.	Fort Preble, Me.	Fort Warren, Mass.	Watertown Arsenal, Mass.					
Mean strength (reported by medical officers).		2,285.	39.	73.	33.					
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	23	3							
2	Other specific febrile and acute infectious diseases, including erysipelas.	71								
3	Malarial fevers and resulting conditions.	156								3
4	Typho-malarial fever	1	1							
5	Diarrhœa, including cholera morbus.	426		3		13			1	
6	Dysentery	22	1	1						
7	Other miasmatic diseases	1	1							
8	Gonorrhœa and results	69		1		4			1	
9	Syphilis and results	49		7		1			2	1
10	Other venereal diseases	29								
11	Vaccina	130		8		3				
12	Other enthetic diseases									
13	Alcoholism	171		1		7			4	
14	Other dietic diseases.									
15	Rheumatism, including muscular	193		3	11	5			6	
16	Other constitutional diseases	9		1						
17	Developmental diseases	2		3						
18	Parasitic diseases	11								
19	Headache and neuralgia	102		1	2	3				
20	Other diseases of the nervous system	27	1	7	1				5	1
21	Diseases of the eye	36		1	1	1				
22	Diseases of the ear	22			2					
23	Catarrhs and common colds.	164		11		8			6	
24	Bronchitis	236		1		3			2	
25	Pneumonia	14								
26	Pulmonary phthisis	4	2	4			1			
27	Pleuritis	3								
28	Other diseases of the respiratory system	22								
29	Diseases of the heart and valves.	7		2					1	
30	Other diseases of the circulatory system	1								
31	Tonsillitis	88			3	1				
32	Dyspepsia, colic, and constipation.	177		1	12	2			1	
33	Other diseases of the digestive system.	152		6	4	3			2	
34	Diseases of the kidneys	1								
35	Other diseases of the genito-urinary system (non-venereal).	38		7					3	
36	Diseases of the locomotor system (excluding muscular rheumatism)	19		4		1				
37	Diseases of the integumentary system	230		1	1	5			1	
38	All other diseases	45		1	2					
39	Heat-stroke.	4								
40	Frost-bite and general freezing.									
41	Contusions and sprains.	267			5	8			2	
42	Dislocations	2				1				
43	Fractures (not gunshot)	11		1		3				
44	Incised, lacerated, contused, and punctured wounds.	101			2	2			1	
45	Shot wounds.	3		2						
46	All other injuries	89	8	3	5	1	6		4	
Total for disease.		2,710	9	56	65	1	59	1	37	2
Total for injury.		477	8	6	12	1	20		7	
Total for all causes		3,187	17	62	77	1	79	1	44	2

mand, and the causes and **Number** of admissions to sick report, deaths and discharges during the year 1887.

Fort Adams, R. I.			Fort Trumbull, Conn.			Fort Columbus, N. Y.			Fort Schuyler, N. Y.			Fort Hamilton, N. Y.			Fort Wadsworth, N. Y.		
216.			70.			153.			60.			173.			40.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
																	1
9						2						1					2
3						4			1			36			4		3
17			5			22			18			14	1		9		4
						3	1		1			1					5
3						8			2			2					6
2			1			8						10	1				7
2						7						2			1		8
																	9
10						14			2			8					10
14			3			7			9			14			1		11
6					1												12
	1					1											13
8			3			3			3			11		1	2		14
			1			3			1	1					2		15
2	1					6		2	2			2					16
2						4											17
1			1			6			5			12					18
6			4			9			10			2			3		19
5									1								20
						1									1		21
						1			1								22
13			1			3			1								23
1	1					1			1								24
																	25
5			1			2			1			3			1		26
9			2			8			5			10			1		27
																	28
19						12		1	2			6			4		29
						1											30
6		3				2			1		1	1					31
3											1						32
																	33
12			3			5			3			15					34
9									1								35
									4								36
									7			23			3		37
22			7			14											38
1																	39
1						1						3		1			40
																	41
12						2			5			12			4		42
1			1			1											43
6						4		1	5			1	3				44
																	45
173		6	25		1	133	1	3	71	1	3	152	1	2	20		46
43			8		1	22		1	21		1	41		1	7		
216		6	33		2	155	1	4	92	1	4	193	1	3	36		3

Table showing, by sex, race and each military station therein.

Names of regions and military stations.		Fort Vesey, N. Y.			Camp, N. Y.			Wills Point, N. Y.			New York City, N. Y.		
Mean strength reported by medical officers.		11			74			88			41		
Causes of admission to sick report.		Admitted			Admitted			Admitted			Admitted		
		Died			Died			Died			Died		
		Discharged			Discharged			Discharged			Discharged		
1	Enteric fever				1	1							
2	Other specific febrile and acute infectious diseases, including erysipelas				8			1					
3	Malarial fever and malarial syndromes				11			20			1		
4	Typhoid-malarial fever												
5	Dysentery, including bacillary dysentery				11			14					
6	Disentery							9		1			
7	Other malarial diseases												
8	Gonorrhea and venereal diseases				11			14					
9	Syphilis and venereal diseases				11					4			
10	Other venereal diseases				1			10					
11	Verruca				11								
12	Other cutaneous diseases												
13	Acanthosis				4			63					
14	Other dermatoses												
15	Rheumatism, including muscular				11			51					
16	Other constitutional diseases							1					
17	Idiosyncrasy, diseases							2		3			
18	Parasitic diseases				9								
19	Headache and neuritis				11			21					
20	Other diseases of the nervous system				1			5		2			
21	Diseases of the eye				11			5					
22	Diseases of the ear				4			9					
23	Catarrhs and common colds				40			2					
24	Bronchitis				50			122			2		
25	Pneumonia				1			1					
26	Pulmonary phthisis						1	1	2		1		
27	Pleuritis												
28	Other diseases of the respiratory system				2			1					
29	Diseases of the heart and valves				2								
30	Other diseases of the circulatory system							1					
31	Tonsillitis				53			13					
32	Dyspepsia, colic, and constipation	1			53	1		40					
33	Other diseases of the digestive system				23			54		3			
34	Diseases of the kidneys												
35	Other diseases of the genito-urinary system (non-venereal)				11	1		6		1			
36	Diseases of the locomotor system (excluding muscular rheumatism)				2	1		2		1			
37	Diseases of the integumentary system	1			86	1		65					
38	All other diseases				5			7					
39	Heat-stroke												
40	Frost-bite and general freezing												
41	Contusions and sprains				45			85					
42	Dislocations												
43	Fractures (not gunshot)				2								
44	Inclined, lacerated, contused, and punctured wounds				24			18		1			
45	Shot wounds												
46	All other injuries				18	3		27		2			
Total for disease		3			736	2	9	700	2	17	4		
Total for injury					89	3		130	2	1			
Total for all causes		3			825	5	9	830	4	18	4		

the mean strength of command, etc.—Continued.

Eastern Tim- bered Plains and Hills.			Kennebec Ar- senal, Me.			Springfield Armory, Mass.			Fort Monroe, Va.			St. Francis Barracks, Fla.			In the field, At- lantic Coast.		
917.			16.			40.			257.			96.			15.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
4	1								21	1							1
19						6			20								2
242	1		1			6			8			33			2		3
184			3			3			55			17			9		4
5									3			3			1		5
23									5			2					6
33	4					1			4			7					7
10									6								8
4									2								9
34						5			31			19					10
4																	11
81	2		4			3			19			17		2			12
4						1			1		1						13
4																	14
4						8			10			9					15
50	2	2	2			1			5		1	1		1			16
11									4								17
17									1								18
4						1			10								19
49			12						4								20
109	2		4						1			2					21
6	1	1							14		1	3					22
4																	23
4			1						1								24
2																	25
8	1	1				1			1		1						26
																	27
19			1			1			3			2					28
48			1			2			19			5					29
57	1	5				1			8			5		1			30
3																	31
13	1								5			3		1			32
1	1								11								33
65			1						21			11			1		34
10			4						19			1			1		35
3																	36
86						2			27			19					37
2	1								1								38
6																	39
46						1			16			2			1		40
3																	41
32	1	1	1			2			8	2		3		1			42
1,131	8	13	39			39	1		308	1	4	141		5	14		43
178	1	2	1			5			52	2		24		1	1		44
1,309	9	15	40			44	1		360	3	4	165		6	15		45

Table showing, for each region and each military station

Names of regions and military stations.		Fort Porter, N. Y.			Fort Wayne, Mich.			Chicago, Ill.			Camp at Highwood, Ill.		
Mean strength (reported by medical officers).		75.			106.			51.			12.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever												
2	Other specific febrile and acute infectious diseases, including erysipelas	2			1			1					
3	Malarial fever and resulting conditions	3			26			1			1		
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	2			16			1					
6	Dysentery	1											
7	Other miasmatic diseases												
8	Gonorrhoea and results	2			21	1							
9	Syphilis and results				4								
10	Other venereal diseases	4			9								
11	Vaccina	8			8								
12	Other enthetic diseases												
13	Alcoholism	4			8	1							
14	Other dietetic diseases												
15	Rheumatism, including muscular	2			10			1			1		
16	Other constitutional diseases	1											
17	Developmental diseases												
18	Parasitic diseases	6											
19	Headache and neuralgia	4			9								
20	Other diseases of the nervous system	1			3								
21	Diseases of the eye				12						1		
22	Diseases of the ear												
23	Catarrhs and common colds										2		
24	Bronchitis	11			14			1					
25	Pneumonia												
26	Pulmonary phthisis				1	1		1					
27	Pleuritis												
28	Other diseases of the respiratory system	2			1								
29	Diseases of the heart and valves				2	1							
30	Other diseases of the circulatory system												
31	Tonsillitis	6			10			1					
32	Dyspepsia, colic, and constipation	4			5						1		
33	Other diseases of the digestive system	2			14	1		3					
34	Diseases of the kidneys												
35	Other diseases of the genito-urinary system (non-venereal)	3			6								
36	Diseases of the locomotor system (excluding muscular rheumatism)				3								
37	Diseases of the integumentary system	4			17								
38	All other diseases				4						1		
39	Heat-stroke				2								
40	Frost-bite and general freezing				1								
41	Contusions and sprains	13			19						2		
42	Dislocations	1											
43	Fractures (not gunshot)												
44	Incised, lacerated, contused, and punctured wounds	2			1								
45	Shot wounds				2								
46	All other injuries	3	1		10	1		2			1		
Total for disease		72			204	1	4	10			7		
Total for injury		19	1		33	3		2			3		
Total for all causes		91	1		237	4	4	12			10		

the mean strength of command, etc.—Continued.

Fort Myer, Va.			Washington Barracks, D. C.			Augusta Arsenal, Ga.			In the field, Eastern Tim-bered Plains and Hills.			Appalachian Mountains.			Watervliet Ar-senal, N. Y.		
64.			267.			27.			4.			68.			40.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1			3	1								2	1		1		
1			3			1						3			3		2
18	1		147						2			4			3		3
35			87			3			2			19			15		4
1			2														5
5			6									1			1		6
2			22	1								1			1		7
4		1	2									2			2		8
																	9
1			22									1					10
			3														11
5			24	1	2							11			8		12
1			1														13
			2														14
2			4			1						6			4		15
			3														16
1			1														17
1			21			1						1			1		18
2			23									7			5		19
1			1			1		1				2	2		2	1	20
																	21
			1														22
				1													23
																	24
																	25
																	26
																	27
			1														28
				1													29
			1														30
3			12			1						2			1		31
												2			2		32
5			8	1	2							5			3		33
1					1												34
2		1	1		2												35
			1									2					36
10			20		2							1					37
2			1														38
1																	39
16			24		1							6			4		40
1		1	3														41
1																	42
5			13						2			3			3		43
			1														44
6		1	6		1							4			2		45
																	46
104	1	2	425	1	4	17	1	4				72	3		52	1	
30		2	47		2			2				13			9		
134	1	4	472	1	4	19	1	6				85	3		61	1	

Table showing, for each region and each military station therein,

Names of regions and military stations.		Allegheny Arsenal, Pa.		Northern Lakes.			Fort Brady, Mich.			Fort Mackinac, Mich.			
Mean strength (reported by medical officers).		28.		1,207.			72.			73.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	1	1		3								
2	Other specific febrile and acute infectious diseases, including erysipelas				13						1		
3	Malarial fevers and resulting conditions	1			53		1						
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	4			95		14				11		
6	Dysentery				6		1				1		
7	Other miasmatic diseases				1	1							
8	Gonorrhoea and results				42		5				2		
9	Syphilis and results				21	4	3				1		1
10	Other venereal diseases				25	1	1						
11	Vaccina				19								
12	Other enthetic diseases				2								
13	Alcoholism	1			48	1	10				3		
14	Other dietic diseases												
15	Rheumatism, including muscular	3			57	3	3				6		1
16	Other constitutional diseases				3						1		
17	Developmental diseases				3	2							
18	Parasitic diseases				7								
19	Headache and neuralgia	2			43	1	3				5		1
20	Other diseases of the nervous system				10								
21	Diseases of the eye				26	2	2				1		1
22	Diseases of the ear				1								
23	Cataracts and common colds				28		4				1		
24	Bronchitis	2			63		11				6		
25	Pneumonia		1		1								
26	Pulmonary phthisis				5	1	3						
27	Pleuritis				2		1						
28	Other diseases of the respiratory system				7								
29	Diseases of the heart and valves				9	2	2						
30	Other diseases of the circulatory system				1	1							
31	Tonsillitis	1			49		2				3		
32	Dyspepsia, colic, and constipation				39		3				1		
33	Other diseases of the digestive system												
34	Diseases of the kidneys	2			64	4	10				7		
35	Other diseases of the genito-urinary system (non-venereal)				1								
36	Diseases of the locomotor system (excluding muscular rheumatism)				17		2						
37	Diseases of the integumentary system	1			3								
38	All other diseases				62		6				1		
39	Heat-stroke				16								
40	Frost-bite and general freezing				2								
41	Contusions and sprains	2			113		15				1	5	
42	Dislocations				4						2		
43	Fractures (not gunshot)				6						1		
44	Incised, lacerated, contused, and punctured wounds				62	1	8				8		
45	Shot wounds				4	2							
46	All other injuries	2			35	4	3				3	1	
Total for disease		20	2		845	4	25	82			52		4
Total for injury		4			232	7		26			20	1	
Total for all causes		24	2		1,077	11	25	108			72	1	4

the mean strength of command, etc.—Continued.

Saint Paul, Minn.			Fort Snelling, Minn.			Plattsburgh Barracks, N. Y.			Madison Bar- racks, N. Y.			Fort Ontario, N. Y.			Fort Niagara, N. Y.		
29.			300.			41.			225.			41.			87.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
			3														1
			6			1						1					2
			1						14			4					3
			8			2			24			2			11		4
			1						2								5
			5			2			1			3					6
			5	3		1			3			4					7
			4			1			5			1		1			8
			2						3								9
						2			13			5			3		10
			11			2			19		2	1			1		11
			1												2		12
			1	1					1						1	1	13
			6			2			11			3					14
			2			1			6						2		15
			3	1		1											16
			1						15			6					17
			4						6			1			8		18
			1												1	1	19
			2	1	1												20
			1														21
			4														22
			1														23
			4						15			6					24
			1						6			1			8		25
			2	1	1										1	1	26
			1														27
			4														28
			4		2				3	1							29
			1		1												30
			7			1			6			3			10		31
			12			1			8			3					32
1			15		2				9						1	1	33
			1														34
			3						1			2					35
																	36
			19			2			9						4		37
			4			1			4						1		38
			3						1								39
			21			2			27			2			6		40
			1						1			1			1		41
			21	1		3			14			2			3		42
			4														43
			6			1			4			1			1		44
1			138	1	11	20			161	2	2	39		1	44		45
			56	1		6			47			5	1		12		46
1			194	2	11	26			211	2	2	44	1	1	56		3

Table showing, for each region and each military station

Names of regions and military stations.		Fort Porter, N. Y.			Fort Wayne, Mich.			Chicago, Ill.			Camp at Highwood, Ill.		
Mean strength (reported by medical officers).		75.			166.			51.			12.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever												
2	Other specific febrile and acute infectious diseases, including erysipelas	2			1			1					
3	Malarial fever and resulting conditions	3			26			1			1		
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	2			16			1					
6	Dysentery	1						1					
7	Other miasmatic diseases												
8	Gonorrhoea and results	2			21	1							
9	Syphilis and results				4								
10	Other venereal diseases	4			9								
11	Vaccina	8			8								
12	Other enthetic diseases												
13	Alcoholism	4			8	1							
14	Other dietetic diseases												
15	Rheumatism, including muscular	2			10			1			1		
16	Other constitutional diseases	1											
17	Developmental diseases												
18	Parasitic diseases	6											
19	Headache and neuralgia	4			9								
20	Other diseases of the nervous system	1			3								
21	Diseases of the eye				12						1		
22	Diseases of the ear												
23	Catarrhs and common colds										2		
24	Bronchitis	11			14			1					
25	Pneumonia												
26	Pulmonary phthisis				1	1		1					
27	Pleuritis												
28	Other diseases of the respiratory system	2			1								
29	Diseases of the heart and valves				2	1							
30	Other diseases of the circulatory system												
31	Tonsillitis	6			10			1					
32	Dyspepsia, colic, and constipation	4			5						1		
33	Other diseases of the digestive system	2			14	1		3					
34	Diseases of the kidneys												
35	Other diseases of the genito-urinary system (non-venereal)	3			6								
36	Diseases of the locomotor system (excluding muscular rheumatism)				3								
37	Diseases of the integumentary system	4			17								
38	All other diseases				4						1		
39	Heat-stroke				2								
40	Frost-bite and general freezing				1								
41	Contusions and sprains	13			19						2		
42	Dislocations	1											
43	Fractures (not gunshot)												
44	Incised, lacerated, contused, and punctured wounds	2			1								
45	Shot wounds					2							
46	All other injuries	3	1		10	1		2			1		
Total for disease		72			204	1	4	10			7		
Total for injury		19	1		33	3		2			3		
Total for all causes		91	1		237	4	4	12			10		

therein, the mean strength of command, etc.—Continued.

In the field, Northern Lakes.			Central Tim- bered Plains and Hills.			Columbus Bar- racks, Ohio.			Newport Bar- racks, Ky.			Indianapolis Arsenal, Ind.			Jefferson Bar- racks, Mo.		
25.			1,309.			359.			40.			27.			699.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
			10	3											8	3	1
			56	1		28			1						26	1	2
2			457	3		76			6			8			265	3	3
4			291		1	26			2			7			218		4
			5									1					5
			155		1	101									47		6
			5		11	26		10							22	1	7
			69			29									31		8
			231			115									113		9
			6			5											10
			21			7			1								11
			100		6	12		3	1			6		1	72		12
			3	1	1										2	2	13
			1	1	1												14
			14			12									2		15
			61		3	5			1			8			41		16
1			26	1	2	9			2						15	1	17
			47			27			1						18		18
			12			7			1			1			2		19
			21						1						20		20
1			17		2	19		1	2						52		21
			7	5	2	3			1			1			16	5	22
			5	1	2	1			1			1			5	1	23
			3	1		2			1						2	1	24
			4	1		2									1	1	25
			1			1									2		26
			10			3									1	1	27
			22			2									2		28
			1			1									1	1	29
1			10			51						4			49		30
			22			16			2			1			16		31
			21	2		41			1			3			15	2	32
2			6	1	1	4	1	1				1			1		33
			28		1	5						1			20		34
			5		1	2									3		35
1			151		1	29			2						108		36
			23		1	10			1			7			5		37
			1												1		38
			4												3		39
1			320			59			1			2			149		40
			4			1									2		41
1			2												1		42
			55		1	17		1	2			1			27		43
			4		1	1									3		44
1			71	2	1	17	1		1			3			40	1	45
12			2,184	21	35	689	1	15	28		1	49		1	1,201	18	46
3			361	2	3	86	1	1	4			6			226	1	2
15			2,545	23	38	775	2	16	32		1	55		1	1,427	19	15

Table showing, for each region and each military station therein,

Names of regions and military stations.		Little Rock Barracks, Ark.			Mt. Vernon Barracks, Ala.			Gulf Coast.			Fort Barrancas, Fla.		
Mean strength (reported by medical officers.)		104.			70.			300.			81.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	2											
2	Other specific febrile and acute infectious diseases, including erysipelas	1						1					
3	Malarial fevers and resulting conditions	59			9			61	1		10		
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	17			13	1		19			9		
6	Dysentery	4						4					
7	Other miasmatic diseases												
8	Gonorrhoea and results	6			2			12			2		
9	Syphilis and results	9	1		1			18		11			
10	Other venereal diseases							11			3		
11	Vaccina	3			3			1					
12	Other enthetic diseases				1			1					
13	Alcoholism	5			8			19	1		3		
14	Other dietetic diseases												
15	Rheumatism, including muscular	6			3			23		1	1		
16	Other constitutional diseases			1	1	1							
17	Developmental diseases				1	1	1						
18	Parasitic diseases												
19	Headache and neuralgia	2			7			15			9		
20	Other diseases of the nervous system							4			2		
21	Diseases of the eye	1								1	1		1
22	Diseases of the ear	1											
23	Catarrhs and common colds							12					
24	Bronchitis	4						4			3		
25	Pneumonia	2											
26	Pulmonary phthisis							3		2	3		2
27	Pleuritis							1			1		
28	Other diseases of the respiratory system												
29	Diseases of the heart and valves									1			
30	Other diseases of the circulatory system							1					
31	Tonsillitis	1			1			3			1		
32	Dyspepsia, colic, and constipation	11			1			14		1	2		
33	Other diseases of the digestive system	6			2			15		1	6		
34	Diseases of the kidneys							1			1		
35	Other diseases of the genito-urinary system (non-venereal)	2		1				3					
36	Diseases of the locomotor system (excluding muscular rheumatism)							1					
37	Diseases of the integumentary system	14			7			38			5		
38	All other diseases	1						13			3		
39	Heat-stroke							1					
40	Frost-bite and general freezing	1											
41	Contusions and sprains	11			7			40			9		
42	Dislocations				1			1					
43	Fractures (not gunshot)	1						2		1			
44	Incised, lacerated, contused, and punctured wounds	4			4			14			2		
45	Shot wounds		2					1					
46	All other injuries	7			3			4			1		
Total for disease		157		3	60	2	2	303	2	18	72		3
Total for injury		24			15			63		1	12		
Total for all causes		181		3	75	2	2	365	2	19	84		3

the mean strength of command, etc.—Continued.

Jackson Barracks, La.			New Orleans, La.			Fort Brown, Tex.			In the field, Gulf Coast.			Prairies.			Northern Group.		
78.			8.			132.			1.			4,045.			1,340.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
			1									16	1				1
												50		1	4		2
5						45	1					628	1	1	45		3
3						7						7	3		1		4
3						1						610	1		128		5
												35			2		6
1						9						116		2	31		7
4			1			14		11				111		15	13		8
1						6						57			7		9
												32			3		10
						1						10			3		11
13	1					3						169			60		12
5			1														13
						10		1				340		7	114		14
												16		3	6		15
												10		4			16
1						5						251			2		17
						2						40			05		18
						3						77		14	8		19
												37		4	23		20
11						1						154		3	10		21
1												264			45		22
												15	4		168		23
												6			2		24
												10	1	4			25
												55		2	2		26
												29	2	9	3		27
								1				8			3		28
						1						206		3	3		29
4						3		1				207			59		30
															72		31
3						6		1				278					32
												5	1	4	77		33
														2	1		34
						3						72		6	23		35
1												19		7	9		36
5						28						410		1	115		37
						10						99		2	37		38
						1						18			6		39
												33	1		18	1	40
5						20						571			210		41
						1						10			4		42
						2		1				22		3	8		43
												221			89		44
2						10						19	3		4		45
						3						180	4	6	55	1	46
62	1		3			165	1	15				4,355	14	94	1,124	4	25
7						44		1				1,080	8	10	391	2	4
60	1		3			209	1	16				5,435	22	104	1,517	6	20

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Pembina, Dak.			Fort Totten, Dak.			Fort Sisseton, Dak.			Fort Buford, Dak.		
Mean strength (reported by medical officers).		84.			124.			98.			278.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever												
2	Other specific febrile and acute infections diseases, including erysipelas				2								
3	Malarial fevers and resulting conditions	4			3			1			10		
4	Typho-malarial fever												
5	Diarrhœa, including cholera morbus	20			6			5			17		
6	Dysentery												
7	Other miasmatic diseases												
8	Gonorrhœa and results	3			3						9		
9	Syphilis and results				12	3		2			5		
10	Other venereal diseases												
11	Vaccina							2					
12	Other enthetic diseases												
13	Alcoholism	3			2						12		
14	Other dietic diseases												
15	Rheumatism including muscular	11			8			7			26	1	
16	Other constitutional diseases							1			4		
17	Developmental diseases												
18	Parasitic diseases												
19	Headache and neuralgia	18			13			7			22		
20	Other diseases of the nervous system	1	1								1		
21	Diseases of the eye	5	2					1			6		
22	Diseases of the ear	3			1						1	1	
23	Catarrhs and common colds	23						6			3		
24	Bronchitis	4			6			1			12		
25	Pneumonia							2			4	1	
26	Pulmonary phthisis												
27	Pleuritis												
28	Other diseases of the respiratory system							1			3		
29	Diseases of the heart and valves				1	1	1	1					
30	Other diseases of the circulatory system	1											
31	Tonsillitis	1			2			3			11		
32	Dyspepsia, colic, and constipation	8			4			9			7		
33	Other diseases of the digestive system	6			3			12			10		
34	Diseases of the kidneys							1	1				
35	Other diseases of the genito-urinary system (non-venereal)	3	1		3	1					5	1	
36	Diseases of the locomotor system (excluding muscular rheumatism)	1			1								
37	Diseases of the integumentary system	8			17			5			19		
38	All other diseases	2			6						2		
39	Heat-stroke										1		
40	Frost-bite and general freezing	3						4	1		2		
41	Confusions and sprains	23			15			14			42		
42	Dislocations	1											
43	Fractures (not gunshot)	2									2	2	
44	Incised, lacerated, contused, and punctured wounds	9			7			4			15		
45	Shot wounds				1			2			1		
46	All other injuries	4			7			3			8		2
Total for disease		125	4		83	1	5	67	1		189	1	3
Total for injury		42			30			27	1		71		4
Total for all causes		167	4		113	1	5	94	2		260	1	7

the mean strength of command, etc.—Continued.

Fort A. Lincoln, Dak.			Fort Yates, Dak.			Fort Bennett, Dak.			Fort Sully, Dak.			Fort Randall, Dak.			In the field, Northern Group, Prairies.		
113.			269.			46.			166.			169.			2.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
																	1
						2											2
1			19						2			4					3
9			31			2			25			13					4
									2								5
2			7						3			4	1				6
1									2			1					7
1			3									3					8
			1														9
1			1									1					10
12			16			1			2			12					11
																	12
9			31			3			2			17					13
												1					14
	1																15
									1			1					16
2			4						13			16					17
					2	1			2			1					18
2			3						1			5					19
			1						1			3					20
6			1			4						2					21
4			38			4			28			11					22
																	23
1		1	1						1		1		1				24
									1								25
																	26
1									1			1					27
																	28
									1			1					29
									1								30
1		1							1								31
6			11			4			6			15					32
6			18			3			8			9					33
																	34
5			7		1	3			22			9					35
																	36
2		1	3			1			5			4					37
																	38
			5		3	1			1								39
12			23			2			19			10					40
2			3						13			9					41
			4														42
2			6						1								43
15			40			5			27			28			1		44
			3														45
			1						1			2					46
8			16			3			10			17					
3	1		7						9			14					
86		4	228	1	6	31			163		1	152		2			
24	1		77			8			48			61			1		
114	1	4	305	1	6	39			211		1	213		2	1		

Table showing, for each region and each military station therein,

Names of regions and military stations.		Middle Group.			Rock Island Arsenal, Ill.			Fort Omaha, Nebr.			Omaha, Nebr., headquarters.		
Mean strength (reported by medical officers).		2,019.			58.			411.			31.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	13	1										
2	Other specific febrile and acute infectious diseases, including erysipelas	38		1				1		1			
3	Malarial fevers and resulting conditions	417	1		10			88			1		
4	Typho-malarial fever	6	3					1	1				
5	Diarrhœa, including cholera morbus	398	1		18			106			1		
6	Dysentery	31											
7	Other miasmatic diseases												
8	Gonorrhœa and results	47			1			9					
9	Syphilis and results	79		10				40		6			
10	Other venereal diseases	39						14					
11	Vaccina	29											
12	Other infective diseases	3									1		
13	Alcoholism	79			1			41			1		
14	Other dietetic diseases												
15	Rheumatism, including muscular	181		6	2			48		2			
16	Other constitutional diseases	5			1			2					
17	Developmental diseases			2									
18	Parasitic diseases	4						1					
19	Headache and neuralgia	131			6			38					
20	Other diseases of the nervous system	22		9				3		1			
21	Diseases of the eye	35						16					
22	Diseases of the ear	19		2				9					
23	Catarrhs and common colds	72			8			43					
24	Bronchitis	141			6			51					
25	Pneumonia	9	2					1					
26	Pulmonary phthisis	2	1	1				1	1				
27	Pleuritis	4											
28	Other diseases of the respiratory system	43		2	2			5					
29	Diseases of the heart and valves	13		4				2		2			
30	Other diseases of the circulatory system	4			1								
31	Tonsillitis	43						10			1		
32	Dyspepsia, colic, and constipation	116			10			26					
33	Other diseases of the digestive system	153		3	10			41		1	1		
34	Diseases of the kidneys	4		2									
35	Other diseases of the genito urinary system (non-venereal)	31		2	4			3					
36	Diseases of the locomotor system (excluding muscular rheumatism)	9		4	3			2		2			
37	Diseases of the integumentary system	173			3			48					
38	All other diseases	54		2	2			7					
39	Heat stroke	6											
40	Frost-bite and general freezing	15						10					
41	Contusions and sprains	252			3			61					
42	Dislocations	6											
43	Fractures (not gunshot)	11		1				4					
44	Incised, lacerated, contused, and punctured wounds	72			2			13			1		
45	Shot wounds	11	2	1									
46	All other injuries	84	3	2	3			16					
Total for disease		2,452	9	50	88			657	2	15	6		
Total for injury		457	5	4	8			107			1		
Total for all causes		2,909	14	54	96			764	2	15	7		

the mean strength of command, etc.—Continued.

Fort Leavenworth, Kans.			Fort Leavenworth Prison, Kans.			Leavenworth City, Kans.			Fort Leavenworth, Kans., Headquarters.			Fort Riley, Kans.			Fort Gibson, Ind. T.		
603.			109.			7.			24.			321.			87.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
6												2	1		2		1
26												11					2
58			1			1						43			30		3
69			9						1			1			1		4
1			1									89			15		5
18			2									21			3		6
26	2		1									8			5		7
13			2									3			3		8
14												2			5		9
13			5						1			12			1		10
30	1		11			1						13			2		11
1												18	2		10		12
1		2															13
1																	14
22			7			1			1			21			9		15
6		1	3									4		4	5		16
8												7			1	3	20
5		2										3					21
7												2			9		22
39			4									24			3		23
5	1											2					24
2												1					25
11		1									1	1					26
1			1								2						27
2																	28
4			1									22			1		29
19			19									17			6		30
54		2	7									15			4		31
2			1									1	1				32
12			1									4			2		33
2		1										2		1			34
55			1									22			8		35
28												4			2		36
3												2					37
2												41			13		38
69			1									2					39
2												1		1	1		40
4												9			6		41
25												7	1	1	5	2	42
5	2		2														43
16		1															44
560	1	12	77			3			3		1	377	1	8	128		45
126	2	1	3									62	1	2	26	2	46
686	3	13	80			3			3		1	439	2	10	154	2	

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Sill, Ind. T.			In the field, middle group, Prairies.			Southern Group.			Fort Concho, Tex.		
Mean strength (reported by medical officers).		282.			119.			647.			172.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	2			1			3					
2	Other specific febrile and acute infectious diseases, including erysipelas							8			2		
3	Malarial fevers and resulting conditions	152	1		31			168		1	26		
4	Typho-malarial fever	3	2										
5	Diarrhoea, including cholera morbus	38			52	1		60			25		
6	Dysentery	3			2			2			1		
7	Other miasmatic diseases												
8	Gonorrhoea and results	3			1			38		1	8		
9	Syphilis and results	6		2				19		2	1		1
10	Other venereal diseases	3						11			2		
11	Vaccina	2											
12	Other enthetic diseases							4			3		
13	Alcoholism				3			30			6		
14	Other dietetic diseases												
15	Rheumatism, including muscular	46		1	15			45			23		
16	Other constitutional diseases	1			5			5		3			
17	Developmental diseases									1			
18	Parasitic diseases	2						4			2		
19	Headache and neuralgia	18			8			25			5		
20	Other diseases of the nervous system	1						10		2	1		
21	Diseases of the eye	1			2			19		2	7		1
22	Diseases of the ear				2			8			2		
23	Catarrhs and common colds	2			1			37			5		
24	Bronchitis	13			1			15			11		
25	Pneumonia	1	1										
26	Pulmonary phthisis	1		1				2					
27	Pleuritis	1						5			5		
28	Other diseases of the respiratory system	24						5			2		
29	Diseases of the heart and valves	7		2				13	1	4	6		1
30	Other diseases of the circulatory system							1		2			
31	Tonsillitis	4			1			4					
32	Dyspepsia, colic, and constipation	11			8			19			10		
33	Other diseases of the digestive system	19			2			48			18		
34	Diseases of the kidneys			1									
35	Other diseases of the genito-urinary system (non-venereal)	5		2				15			7		
36	Diseases of the locomotor system (excluding muscular rheumatism)							1			1		
37	Diseases of the integumentary system	24			17			117		1	31		
38	All other diseases	10		1	1			8			4		
39	Heat-stroke				3			7					
40	Frost-bite and general freezing	1											
41	Contusions and sprains	47			14			112			50		
42	Dislocations	1			1								
43	Fractures (not gunshot)				1			3			1		
44	Incised, lacerated, contused, and punctured wounds	9			7			61			40		
45	Shot wounds	5		1				4	1		1		
46	All other injuries	26			9			41		2	16		
Total for disease		403	4	10	150	1		779	1	19	214		3
Total for injury		89		1	35			230	1	2	114		
Total for all causes		492	4	11	185	1		1,009	2	21	328		3

the mean strength of command, etc.--Continued.

San Antonio Post, Tex.			San Antonio, Tex., Headquarters.			Camp Langtry, Tex.			In the field, southern group, Prairies.			Great Plains.			Northern Group.		
375.			30.			20.			50.			6,707.			2,261.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
3												68	6		2	1	1
6												87	1		16	1	2
117		1	2			2			21			104	2		67		3
56						3			6			731	1	5	221		5
			1									72			7		6
30		1										3			1		7
18		1										194		2	66		8
9												125		14	30		9
												131		1	54		10
1												44			5		11
24												21			7		12
												319	2	1	97		13
19			1			1			1			10			2		14
5		3										621		22	203		15
		1										28	2	6	5	1	16
#2												3		4	1	2	17
16			1			1			2			26			1		18
												414		2	173		19
6		2	2						1			71	2	17	24		20
10		1	2									180		7	65		21
5			1									49		4	25		22
32												204			132		23
4												479	1	8	193	1	24
												15	5		5	2	25
1			1									24	3	15	12	1	26
												20		1	7		27
3												29		3	10		28
7	1	3										45	3	10	26		29
1		2										9		1			30
3			1									222			92		31
6			1						2			404			145		32
28			1						1			430	5	9	166		33
												18		2	3		34
												88		9	34		35
			5									40		12	12		36
71		1	3			5			7			544		1	196		37
2			1						1			158			58		38
1									6			9			1		39
												51		1	26		40
51						2			3			1,002		6	416		41
												21		1	6		42
2												60		4	21		43
22						1						346	1		113		44
3	1											52	10	4	17	4	45
22		2							3			241	6	5	80		46
488	1	16	23			12			42			6,330	33	156	2,223	7	60
101	1	2				3			12			1,782	17	21	680	4	11
589	2	18	23			15			54			8,112	50	177	2,803	11	74

Table showing, for each military station therein,

Names of regions and military stations.		Fort Assiniboine, Mont.			Camp Poplar River, Mont.			Fort Shaw, Mont.			Fort Maginnis, Mont.		
Mean strength (reported by medical officers).		396.			97.			201.			111.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	2	1										
2	Other specific febrile and acute infectious diseases, including erysipelas	4						2			2	1	
3	Malarial fevers and resulting conditions	14			1						4		
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	42			17			16			5		
6	Dysentery	1											
7	Other miasmatic diseases	14			11			1			1		
8	Gonorrhoea and results	6	2								2		
9	Syphilis and results	10			2			1			1		
10	Other venereal diseases	3											
11	Vaccina	1						1					
12	Other enthetic diseases	23			1			8			1		
13	Alcoholism	1						1					
14	Other dietetic diseases	29			11			15	1		7		
15	Rheumatism, including muscular	1	1										
16	Other constitutional diseases							1	1				
17	Developmental diseases	27			8			8			7		
18	Parasitic diseases	6			1			3			2		
19	Headache and neuralgia	23			1			2			3		
20	Other diseases of the nervous system	4			3						1		
21	Diseases of the eye	7			4			2			3		
22	Diseases of the ear	19			12			5			12		
23	Catarrhs and common colds	1											
24	Bronchitis	1											
25	Pneumonia	1	1		3								
26	Pulmonary phthisis												
27	Pleuritis				1			2		1			
28	Other diseases of the respiratory system	3			6	1		4					
29	Diseases of the heart and valves	7			7			5					
30	Other diseases of the circulatory system	20			5			15			3		
31	Tonsillitis	34			14			14			2		
32	Dyspepsia, colic, and constipation	1	1										
33	Other diseases of the digestive system	6			10	1					5		
34	Diseases of the kidneys	3		1				1					1
35	Other diseases of the genito-urinary system (non-venereal)	27			18			3			10		
36	Diseases of the locomotor system (excluding muscular rheumatism)	30			2			1			4		
37	Diseases of the integumentary system	1											
38	All other diseases	3			3			4			3		
39	Heat-stroke	40			19			28	1		22		1
40	Frost-bite and general freezing	1											
41	Contusions and sprains	2	1		2						3		
42	Dislocations												
43	Fractures (not gunshot)	19			11			7			7		
44	Incised, lacerated, contused, and punctured wounds	1			1			1	1		1	1	
45	Shot wounds	10			9	1		4			5		1
46	All other injuries												
Total for disease		370	1	6	138	2		112	1	1	71	1	1
Total for injury		* 77		1	45	1		44	1	1	41	1	2
Total for all causes		447	1	7	183	3		156	2	2	112	2	3

the mean strength of command, etc.—Continued.

Fort Keogh, Mont.			Fort Custer, Mont.			Fort Meade, Dakota.			Fort McKin- ney, Wyo.			In the field, north- ern group, Great Plains.			Middle Group.		
364.			363.			462.			171.			96.			2,707.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
3			1			3									57	5	1
															57		2
2			13			25			5			3			181		3
															1		4
22			20		2	72			24			3			311	1	5
									3			3			30		6
1																	7
6			13		2	16			5						51		8
4			10			6		2				3			31		9
2			25			3			9			1			25		10
1															23		11
2			1									2			7		12
29			5			25			5						103	1	13
															1		14
45		1	40		7	94		3	14		1	8			218		15
1						2									14	1	16
1		1			1						1				1		17
1															8		18
31		1	7			47			37						180		19
5		1	4		1	4			1			1			31		20
10		1	5			18		1	4						63		21
6		1	4		1	4			1						10		22
1			24			86			5			2			53		23
32		2	3			86	1	1	24		1				233		24
			1	1		2			1	1					7	3	25
1	1					9		7	1						7		26
			2						2						8		27
1			2						2			2			13		28
4				1		8						1			11	1	29
						31			17			5			7		30
20						50			12			2			109		31
14			24												123		32
18		1	13			53		3	17			1			152	2	33
1						1									4		34
4		1	3		1	4		1	2		1				30		35
1			1			3		1	2		1	1			13		36
35			36			40			24			3			199		37
1			7			3			10						35		38
1			1			10			1						21		39
85			40			130		1	44		1	5			365		40
			2			2					1				8		41
			5		1	1			3		1				17		42
4																	43
23			15			23			4			4			147		44
2			2			8		3	1	1			1		26	3	45
8			9			25			6			4			99	2	46
305	1	10	204	1	16	685	1	19	227	1	5				2,401	14	61
126			74		1	199		4	59	1	1	41	1		683	5	8
431	1	10	338	1	17	894	1	23	286	2	6	56	1		3,084	19	69

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Ringgold, Tex.			Camp at Eagle Pass, Tex.			In the field, Southern Group, Great Plains.			Cordilleras.		
Mean strength (reported by medical officers).		133.			56.			20.			5,362.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever.....										42	2	
2	Other specific febrile and acute infectious diseases, including erysipelas.....	1									81	1	
3	Malarial fevers and the resulting conditions.....	23			5			8			385	1	1
4	Typho-malarial fever.....										5		
5	Diarrhœa, including cholera morbus.....	2		1	5			2			627	1	2
6	Dysentery.....										50	3	1
7	Other miasmatic diseases.....				1								
8	Gonorrhœa and results.....	10			1			2			126		
9	Syphilis and results.....	1									96		21
10	Other venereal diseases.....	5			2						103		
11	Vaccina.....										41		
12	Other enthetic diseases.....	1									16		
13	Alcoholism.....	19			1						239	1	2
14	Other dietetic diseases.....										4		1
15	Rheumatism, including muscular.....	8		2	2						482	1	18
16	Other constitutional diseases.....							1			17	1	2
17	Developmental diseases.....										2		1
18	Parasitic diseases.....				1						5		
19	Headache and neuralgia.....	4									340		4
20	Other diseases of the nervous system.....	2									81	4	20
21	Diseases of the eye.....	6			1						132		12
22	Diseases of the ear.....	2		1							23		3
23	Catarrhs and common colds.....										124		
24	Bronchitis.....							3			309		4
25	Pneumonia.....				1						20	7	
26	Pulmonary phthisis.....										24	2	14
27	Pleuritis.....				1						11		1
28	Other diseases of the respiratory system.....										20	1	
29	Diseases of the heart and valves.....		1								34	6	6
30	Other diseases of the circulatory system.....	1									7	1	2
31	Tonsillitis.....										225		1
32	Dyspepsia, colic, and constipation.....	3			2			1			280		1
33	Other diseases of the digestive system.....	12			3						299	3	10
34	Diseases of the kidneys.....	2									13	1	2
35	Other diseases of the genito-urinary system (non-venereal).....										83		9
36	Diseases of the locomotor system (excluding muscular rheumatism).....	3		1	1						40		12
37	Diseases of the integumentary system.....	6			4			7			302		1
38	All other diseases.....				3						171	1	4
39	Heat-stroke.....										4		
40	Frost-bite and general freezing.....										13	1	
41	Contusions and sprains.....	13			7						787		1
42	Dislocations.....										10		
43	Fractures (not gunshot).....	1									38	1	1
44	Incised, lacerated, contused, and punctured wounds.....	7			4						265		2
45	Shot wounds.....	1									21	9	6
46	All other injuries.....	5	1		1			3			208	6	9
Total for disease.....		111	1	5	34			24			4,859	37	155
Total for injury.....		27	1		12			3			1,346	17	19
Total for all causes.....		138	2	5	46			27			6,205	54	174

the mean strength of command, etc.—Continued.

Fort Sidney, Nebr.			Fort Hays, Kans.			Fort Lyon, Colo.			Fort Supply, Ind. T.			Fort Reno, Ind. T.			Fort Elliott, Tex.		
194.			147.			218.			265.			301.			191.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
4			6	1		6	1										1
3						12						2			3		2
12			5			15			18			67			6		3
80			5		1	26			29			26			14		5
2						1			11			12			2		6
3			1			4			6			8			9		7
1			3			3			2		1	12			2		8
5						3			1			3			1		9
10						11									1		10
1			1						3								11
41			1			10			1						5		12
12			12		1	18			14			1			10		13
1			1		1				1			2			2	1	14
			1												3		15
26			4			19			24			28			3		16
4			1		1	3			6		1	2		2	1		17
3			4			8			9			9		2	2		18
						2			1								19
2			1			13			2			9					20
57			23			9			7			58			11		21
1			1		1	1											22
			3		2												23
			1						3			1					24
1																	25
						1						2					26
						1		1				1					27
																	28
									1								29
									4								30
23			8			19			15			11			5		31
			5			16						22			9		32
																	33
7			14		1	28			6			21			9	1	34
1		1				1						1					35
																	36
3			1			4			5			3			6		37
						1						2		1			38
																	39
12			7			27			25			41			17		40
3			1			3			5			6			4		41
																	42
						1						1					43
28			4			37			31			63			17		44
						1			1			2			1		45
1						2			5			1			3		46
10			2			5			23			21			13		
1			2			3			1			1			3	1	
6			4		1	9			16		1	18			7		
317		1	110	2	7	254	1	1	201		2	377		7	125	2	2
40			12			58			77		1	107			44	1	
363		1	122	3	7	312	1	1	278		1	484		7	169	3	2

Table showing, for each region and each military station therein,

Names of regions and military stations.		In the field. Middle group. Great Plains.			Southern Group.			Fort Stanton, N. Mex.			Fort Bliss, Tex.		
Mean strength (reported by medical officers).		33.			1,739.			204.			115.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever.....				9			1			5		
2	Other specific febrile and acute infectious diseases, including erysipelas.....				14						1		
3	Malarial fevers and resulting conditions.....	1			156	2		1			20		
4	Typho-malarial fever.....												
5	Diarrhœa, including cholera morbus.....	6	1		199		2	3			22		
6	Dysentery.....	1			35						4		
7	Other miasmatic diseases.....				1								
8	Gonorrhœa and results.....				74			9					
9	Syphilis and results.....				64		5	14		2	9		
10	Other venereal diseases.....				52		1	1			4		
11	Vaccina.....				16						1		
12	Other enthetic diseases.....				7								
13	Alcoholism.....				119	1	1	3	1		3		
14	Other dietic diseases.....				7			1					
15	Rheumatism, including muscular.....				140		2	3			8		
16	Other constitutional diseases.....				9								
17	Developmental diseases.....				1		1						
18	Parasitic diseases.....				17			1					
19	Headache and neuralgia.....	2			61			1			8		
20	Other diseases of the nervous system.....				16	2	5		1	1	1		
21	Diseases of the eye.....				52		2	2					
22	Diseases of the ear.....				14		2				4		
23	Catarrhs and common colds.....	3			19								
24	Bronchitis.....				53		1	4			6		1
25	Pneumonia.....				3								
26	Pulmonary phthisis.....				5	2	3				1		1
27	Pleuritis.....				5		1						
28	Other diseases of the respiratory system.....	3			6						2		
29	Diseases of the heart and valves.....				8	2	3			1			
30	Other diseases of the circulatory system.....				2		1						
31	Tonsillitis.....				21			3					
32	Dyspepsia, colic, and constipation.....				136			8			2		
33	Other diseases of the digestive system.....				112	3	1	7			16	1	
34	Diseases of the kidneys.....				11						2		
35	Other diseases of the genito-urinary system (non-venereal).....				24		1						
36	Diseases of the locomotor system (excluding muscular rheumatism).....				15		3						
37	Diseases of the integumentary system.....				158			9			10		
38	All other diseases.....				63			4			5		
39	Heat-stroke.....				8			1			1		
40	Frost-bite and general freezing.....				4			2			1		
41	Contusions and sprains.....	4			221			22			22		
42	Dislocations.....				7								
43	Fractures (not gunshot).....				22								
44	Incised, lacerated, contused, and punctured wounds.....	1			86	1		10			4		
45	Shot wounds.....			1	9	3		1			1		
46	All other injuries.....				62	4	2	2			1	1	
Total for disease.....		16	1		1,706	12	35	75	2	4	136	1	2
Total for injury.....		5		1	419	8	2	38			30	1	
Total for all causes.....		21	1	1	2,125	20	37	113	2	4	166	2	2

the mean strength of command, etc.—Continued.

Fort Hancock, Tex.			Fort Davis, Tex.			Camp Pena Col- orado, Tex.			Camp Del Rio, Tex.			Fort Clark, Tex.			Fort McIn- tosh, Tex.		
63.			279.			59.			59.			600.			151.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
			3														1
3			1			1			3			2			2		2
5			12			4			5			40			33	2	3
																	4
8			39		1	11			6			72			29		5
1			9									19			2		6
2			11			1			1			23			14		7
3			10			3		2				15		1	9		8
			18		1	3			1			16			5		10
			5									8			2		11
2			8			1			1			4					12
						1			9			71		1	2		13
4			10			4			8			6					14
						1						73			20		15
												7					16
2			2									1		1			17
7			7			3			3			7			4		18
												17			11		19
1			7		1							4	1	3	1		20
1			21			2						16		2	3		21
		1							1			7					22
			1			3			2			12			1		23
			9			2			2			19			8		24
												1			1		25
1			1		1							2		1	1	1	26
			2									2					27
																	28
			1			1			1			2					29
			1	1								2		2	4		30
									1		1						31
1			3			1			3			8					32
8			19			1			6			76			10		33
																	34
4			21	1		4			2			34	1	1	9		35
			1			1						5					36
																	37
			4						1			12		1	7		38
						1						7		2	3		39
																	40
7			21			1			5			69			9		41
			1			1						35			16		42
												5			1		43
			1														44
14			24			14			11			70			24		45
						3						4					46
			5			1			4			11					
2			13			2			9			28	1		7		
			2						1	1		3	2				
2	1		9	1		1			2			25		1	11		
59	1	1	248	2	4	48		2	61		1	694	2	16	216	3	
18	1		54	1		21			27	1		146	3	1	43		1
77	2	1	302	3	4	69		2	88	1	1	840	5	17	259	3	1

Mr. MARTIN. I am not sure that I have any more questions to ask.

[illegible]

Northern Group.			Fort Spokane, Wash.			Fort Sherman, Idaho.			Fort Missoula, Mont.			Fort Walla Walla, Wash.			Helena, Mont.		
1,244.			247.			252.			166.			287.			1.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
4																	1
6												2					2
67	1		12			10						37	1				3
153			16			13						59					4
5	1					1			47								5
20			4			11			2			2					6
14	3		3		1	1			1			2					7
23			1			1			2		1	4					8
9						6											9
59			5			11			26			7					10
3	1								2			2					11
138	6		34		1	25		4	36		1	20		1			12
4	1											1			1		13
66		1	9			15			20		1	8			1		14
9	1	2	1	1	1	2			2			1			1		15
17		2	3			1			4		1	4		1			16
8		1	2		1	1			4			4					17
37			1			4			28								18
114			43			27			20			14					19
2			2		1	2		3				2		2			20
2						1						1					21
5						2						3					22
7	2	3	3			1	1	2	1		1		1				23
4		1															24
50			13			7			3								25
53			9			13			23			7					26
57		4	8		1	13		2	9			4					27
4												14					28
21		4	5		1	1			4		1	1					29
																	30
8			2		1	2								1			31
79			14			18			10			24					32
24			2			2						4					33
1																	34
5			2			1											35
208			36			35			41			50					36
1			1			2						2					37
12			4														38
69			7			20			13			17					39
50	5	1		1			1			1		2	2				40
6	2	3	6	1		12			5	1	1	16	1	2			41
1,094	5																

Table showing, for each region and each military station therein,

Names of regions and military stations.		Boise Barracks, Idaho.			Fort Wash- akie, Wyo.			Camp Sher- idan, Wyo.			In the field Northern Group, Cor- dilleras.		
Mean strength (reported by medical officers).		98.			124.			52.			17.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever				4								
2	Other specific febrile and acute infectious diseases, including erysipelas	3			1								
3	Malarial fevers and resulting conditions	6			1			1					
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	3			13			2					
6	Dysentery				2		1						
7	Other miasmatic diseases												
8	Gonorrhoea and results	3			4			1					
9	Syphilis and results	1			1			2		1			
10	Other venereal diseases				16								
11	Vaccina	2			7								
12	Other enthetic diseases												
13	Alcoholism	9						1					
14	Other dietetic diseases							1					
15	Rheumatism, including muscular	9			9			4					
16	Other constitutional diseases	1			1	1		2					
17	Developmental diseases												
18	Parasitic diseases												
19	Headache and neuralgia	3			4			6					
20	Other diseases of the nervous system				2		1						
21	Diseases of the eye				5								
22	Diseases of the ear							1					
23	Catarrhs and common colds	4											
24	Bronchitis	4			5			1					
25	Pneumonia	1			1								
26	Pulmonary phthisis	1											
27	Pleuritis												
28	Other diseases of the respiratory system				1								
29	Diseases of the heart and valves	1											
30	Other diseases of the circulatory system	1		1									
31	Tonsillitis	6			4								
32	Dyspepsia, colic, and constipation	8			7			3					
33	Other diseases of the digestive system	8			6			4					
34	Diseases of the kidneys	1			2								
35	Other diseases of the genito-urinary system (non-venereal)	1			5			1		1			
36	Diseases of the locomotor system (excluding muscular rheumatism)				2			1		1			
37	Diseases of the integumentary system	5			6			2					
38	All other diseases	4			11			1					
39	Heat-stroke	1											
40	Frost-bite and general freezing				2								
41	Contusions and sprains	24			13			9					
42	Dislocations												
43	Fractures (not gunshot)	3			1								
44	Incised, lacerated, contused, and punctured wounds	5			2			5					
45	Shot wounds	3		1	1								
46	All other injuries	10			1								
Total for disease		84		1	120	1	2	34		3			
Total for injury		46		1	20			14					
Total for all causes		130		2	140	1	2	48		3			

the mean strength of command, etc.—Continued.

Middle Group.			Fort Klamath, Oregon.			Fort Bidwell, Cal.			Fort McDermitt, Nev.			Fort Bridger, Wyo.			Fort Douglas, Utah.		
2,155.			47.			117.			40.			168.			375.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
19									1						6		1
69	1					1									7	1	2
119			3						2			16			2		3
1																	4
205	1		1			4			2			7			58		5
8			4														6
29																	7
41		13				1		1				3			9		8
18						2									8		9
4						3									4		10
6																	11
112	1		1			1						1			2		12
172	1	9	3		1	4						15			45		13
7		1				1									36		14
1															1		15
2																	16
170		1	2		1	3			1						1		17
36	2	10	2									17			45		18
71		6	2		1	5			1			1		1	3		19
6		1	1									2			21		20
51												3			3		21
99		4	2			6		1	1			6			13		22
11	3														2		23
7	1	4				1		1				1		1	1	1	24
4		1															25
6																	26
14	2	1				1						1			1		27
2	1								1								28
110		1				5			2								29
96		1	2			7			4			14			20		30
121	2	2	3			7			6		1	5	1		12		31
1																	32
27		3															33
12		6	1		2	2									8		34
118												1		1	4		35
109	1	2				6			3								36
1						7			2			9			23		37
8	1											1			60		38
290		1	1			18			2					1	58		39
5															2		40
16									1			1					41
96		2				2			2					1	10		42
9	1	2										17					43
75	1	1	2			3			1			6		1	18		44
1,884	15	68	27		5	75		3	26		1	115	1	3	420	2	45
500	3	6	3			23			6			42		3	88		46
2,384	18	74	30		5	98		3	32		1	157	1	6	508	2	13

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Dr. Chase, Utah.			Fort Crawford, Colo.			Fort Lewis, Colo.			Fort Tamm, S. Mex.		
Mean strength reported by medical officers.		291			81			56			271		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever.							1					
2	Other specific febrile and acute infectious diseases, including erysipelas.	3						1			2		
3	Malarial fevers and resulting conditions.	12			6			3			10		
4	Typho-malarial fever.												
5	Dysentery, including cholera morbus.	10			4						15		
6	Dysentery.	3											
7	Other miasmatic diseases.												
8	Gonorrhea and results.	1						3					
9	Syphilis and results.							1					
10	Other venereal diseases.	1						1					
11	Vaccinia.												
12	Other cutaneous diseases.												
13	Amebiasis.							1			2		
14	Other local diseases.												
15	Exanthemata, including scarlatina.	16			3			14			16		
16	Other exanthemata diseases.	3											
17	Intergroupal diseases.												
18	Parasitic diseases.												
19	Headache and vertigo.	5			4			5			12		
20	Other diseases of the nervous system.	4	3					6	2		9	2	2
21	Diseases of the eye.	4			1						4		
22	Diseases of the ear.												
23	Cataracts and ocular cataracts.	9			1			4					
24	Brachitis.	11			4			1					
25	Pharyngitis.							4					
26	Pharyngeal polyps.	1	1										
27	Pharynx.												
28	Other diseases of the respiratory system.				1			1					
29	Diseases of the heart and valves.	1						4	2				
30	Other diseases of the circulatory system.												
31	Yaws.	1						1			1		1
32	Intoxication with and consequences.	1			3			14			11		
33	Other diseases of the digestive system.	23			2			28	1		2		
34	Diseases of the kidneys.												
35	Other diseases of the genito-urinary system, non-venereal.	4	1		1			1	1		6		
36	Diseases of the locomotor system, excluding rheumatism.	1											
37	Diseases of the integumentary system.	17			4			21			12		
38	All other diseases.	4			1			14			1		
39	Heat stroke.	1											
40	Frost-bite and general freezing.	4											
41	Cuts, lacerations and sprains.	25			1			31			19		
42	Dislocations.												
43	Fractures not gunshot.	1						1					
44	Incised, lacerated, punctured, and gunshot wounds.	24						21			21		
45	Shot wounds.	1											
46	All other injuries.	4			3			7			9		
Total for disease.		207		24	17		3	234	4	6	156	4	3
Total for injury.		57			19		1	38			28		
Total for all causes.		264		24	36		4	272	4	6	184	4	3

the mean strength of command, etc.—Continued.

Fort Wingate, N. Mex.			Fort Marcy, N. Mex.			Camp Pilot Butte, Wyo.			Camp Medicine Butte, Wyo.			Camp near Denver, Colo.			In the field, Mid- dle Group, Cor- dilleras.		
325.			80.			87.			5.			14.			21.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
						9									1		1
			5			5						4			1		2
62			3												2		3
52			3			14									12		4
			1														5
7			3									1					6
7			3									1					7
4			3														8
1																	9
																	10
14						6											11
29	2	6	1	1	16		1	1				4			1		12
																	13
1																	14
51			11			3						1			1		15
																	16
2		2	1	1		1			1								17
16		2	6												2		18
								1									19
33												1					20
17		1	9			8						5					21
			1	1		1											22
3		1															23
			1		1										1		24
																	25
3						1											26
																	27
																	28
4			3				1										29
16			12			3		1				1					30
												1			1		31
22		1	6			4			1			1					32
1																	33
																	34
5		1	2														35
																	36
2		1			1												37
14			1			4									2		38
4		1	2			7											39
						1											40
70			10			8			1			2			2		41
			1												1		42
3						1											43
																	44
12			5			1											45
1		1				1											46
7			6			4									2		
370	12	81	3	3	82	1	3	3				20			24		
93	1	22			16			1				2			6		
463	13	103	3	3	98	1	3	4				22			30		

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Grant, Ariz.			Fort Bowie, Ariz.			Fort Lowell, Ariz.			Ft. Huachuca, Ariz.		
Mean strength (reported by medical officers).		199.			150.			143.			253.		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	1			3	1					1		
2	Other specific febrile and acute infectious diseases, including erysipelas												
3	Malarial fevers and resulting conditions	48		1	4			25			33		
4	Typho-malarial fever							3			1		
5	Diarrhoea, including cholera morbus												
6	Dysentery	37			11			19			66		
7	Other miasmatic diseases	7	1		1			6			3	1	
8	Gonorrhoea and results	21			4			19			13		
9	Syphilis and results	8						5			5		
10	Other venereal diseases	26			10			12			7		
11	Vaccina	1									3		
12	Other enthetic diseases				1			2			2		
13	Alcoholism				2			9			14		
14	Other dietic diseases												
15	Rheumatism, including muscular	17			7			17		1	24		
16	Other constitutional diseases									1	1		
17	Developmental diseases										1		
18	Parasitic diseases										2		
19	Headache and neuralgia	11			9	1		5			8		
20	Other diseases of the nervous system				4		1	6		1	2		1
21	Diseases of the eye	6			3			5		1	5		
22	Diseases of the ear				1						3		1
23	Catarrhs and common colds										2		
24	Bronchitis	14			5			10					
25	Pneumonia	1	1								2	1	
26	Pulmonary phthisis	1	1					1			1		
27	Pleuritis				1								
28	Other diseases of the respiratory system				1								
29	Diseases of the heart and valves				2			1	1		4		1
30	Other diseases of the circulatory system							1					
31	Tonsillitis	19						1			7		
32	Dyspepsia, colic, and constipation	3			10			20			2		
33	Other diseases of the digestive system	17			4			11			15		1
34	Diseases of the kidneys				1	1		3		1			
35	Other diseases of the genito-urinary system (non-venereal)	2		1				5		1	5		
36	Diseases of the locomotor system (excluding muscular rheumatism)	1			5		1				2		
37	Diseases of the integumentary system	6			9		1	15			27		
38	All other diseases				2			4			9		2
39	Heat-stroke												
40	Frost-bite and general freezing												
41	Contusions and sprains	60			24			32			35		
42	Dislocations	1											
43	Fractures (not gunshot)							2			4		
44	Incised, lacerated, contused, and punctured wounds	23			13			5			12		
45	Shot wounds			1	1	1							
46	All other injuries	8	1		7			7	1	1	18		2
Total for disease		247	3	2	100	2	4	206	1	6	270	2	6
Total for injury		92	1	1	45	1		46	1	1	69		4
Total for all causes		339	4	3	145	3	4	252	2	7	339	2	10

the mean strength of command, etc.—Continued.

In the field, Southern Group, Cordil- leras.			Pacific Coast.			Northern Group.			Fort Townsend, Wash.			Fort Canby, Wash.			Vancouver Barracks, Wash.			In the field, Northern Group, Pacific Coast		
48			1,620.			599.			53.			66.			470.			10.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1			6																	1
			19			15									15					2
3			86			48			1						47					3
			1																	4
3	1		80			35			5			2			28					5
			18																	6
			36			19			2						17					7
1			35		8	13		2				2		1	11		1			8
			22			5			1			2		2	2					9
			14			2			1					1	1					10
			3			1			1					1	1					11
			83			41			1			8		32						12
																				13
3			117		7	61		4	10		1	11		1	40		2			14
			5			1								1						15
			1		4															16
			1																	17
1			70			33						3			30					18
																				19
			14	1	2	7						1			6					20
			24		3	12		1	1			1			10		1			21
			7		2	4									4		1			22
			12			2									2					23
1			95			43			5			2			39					24
			3																	25
			4		2	2			1						1					26
			3			1									1					27
																				28
			6		3	3		2							3		2			29
			12	1	5	8	1	1				3			5	1	1			30
																				31
			3		1															32
			35			15			2			4			9					33
			53			28						4			24					34
																				35
4			85		5	38		2	7			2			29		2			36
			4	3		1	1								1	1				37
																				38
1			19			12			1			1			10					39
																				40
1			10		6	4		2				1			3		2			41
																				42
			90			21			4			2			15					43
			12		1	3		1	2						1		1			44
			3																	45
																				46
			177			82			9			6			67					
1			2																	
1			12		1	4		1							4		1			
1			59			22			3			3			16					
			3																	
			51	3	3	21	1	1				6			15	1	1			
19	1		1,088	5	50	478	2	16	44		1	49		2	385	2	13			
6			307	5	4	129	2	2	12			15			102	2	2			
25	1		1,395	10	54	607	4	18	56		1	64		2	487	4	15			

Table showing, for each region and each military station therein, the mean strength of command, etc.—Continued.

Names of regions and military stations.		San Diego Barracks, Cal.			In the field, Southern Group, Pacific Coast.			Hot Springs, Ark.			At large (dentals and discharges).		
Mean strength (reported by medical officers).		51.			67.			21.			—		
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1	Enteric fever	3			1								
2	Other specific febrile and acute infectious diseases, including erysipelas				1							1	
3	Malarial fevers and resulting conditions				7								
4	Typho-malarial fever												
5	Diarrhoea, including cholera morbus	5			15			1					
6	Dysentery				15			1					
7	Other miasmatic diseases	2											
8	Gonorrhoea and results	1			1			1					
9	Syphilis and results	1	1		2	2		1					
10	Other venereal diseases	2			1								
11	Vaccina	2											
12	Other enthetic diseases	1											
13	Alcoholism	3			4								
14	Other dietic diseases												
15	Rheumatism, including muscular	5	1		1			5	3				
16	Other constitutional diseases											1	
17	Developmental diseases			1	1	1							1
18	Parasitic diseases												
19	Headache and neuralgia	2			1			1	1				
20	Other diseases of the nervous system	1										5	35
21	Diseases of the eye												
22	Diseases of the ear												
23	Catarrahs and common colds	1											
24	Bronchitis	14			2								
25	Pneumonia				1							1	
26	Pulmonary phthisis	1										2	1
27	Pleuritis												
28	Other diseases of the respiratory system				1								
29	Diseases of the heart and valves				1								1
30	Other diseases of the circulatory system					1							
31	Tonsillitis	1			2								
32	Dyspepsia, colic, and constipation	6						1					
33	Other diseases of the digestive system	6						1				1	1
34	Diseases of the kidneys	1							2				
35	Other diseases of the genito-urinary system (non-venereal)				1								
36	Diseases of the locomotor system (excluding muscular rheumatism)				3	3							
37	Diseases of the integumentary system	2			11			1					
38	All other diseases							1					
39	Heat-stroke												
40	Frost-bite and general freezing												
41	Contusions and sprains	5			10								
42	Dislocations	1			1								
43	Fractures (not gunshot)												
44	Incised, lacerated, contused, and punctured wounds	2			1								
45	Shot wounds												
46	All other injuries	1			2								
Total for disease		59	3		75	8		12	2	7		11	39
Total for injury		9			14								
Total for all causes		68	3		89	8		12	2	7		11	39

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Angel Island, Cal.			Presidio of San Francisco, Cal.			Benicia Barracks, Cal.			Benicia Arsenal, Cal.			San Francisco, Cal.			Los Angeles, Cal.		
142.			404.			63.			54.			43.			28.		
Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.	Admitted.	Died.	Discharged.
1																	
			2														
5			20			4			1								
3			7			3			5								
									1								
6			5														
3	1		13		1				1								
3			4						1								
4			5														
5			17			2			1								
5			26		1	6		1	5								
		2	4		1												
1																	
3			15			2			5								
		1	3		1	1						1					
3			6		2				1								
1			1		1												
12			6														
1			3			3			6								
		1															
			1			1											
		1	2		1												
			3		1												
1																	
6			8			1											
1			8			1			1						1		
7		1	10		2	3			3								
				1					1								
			1			2											
1			2		1												
16			19						1								
			4			1			1								
						3											
11			45			4			3			1			3		
						1									1		
1			3														
3			17			3			2								
5	1	1	3	1													
			14	1	1	1			2								
88		7	201	1	12	31		1	34			1			1		
20	1	1	82	2	1	12			7			1			4		
108	1	8	283	3	13	43		1	41			2			5		

Table showing for the white and colored troops separately, the causes, and Ratios per effectiveness for

Causes of admission to sick report.		The whole Army.			
		Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....	7.30	.64	.....	.94
2	Other specific febrile and acute infectious diseases, including erysipelas.....	16.78	.15	.04	.63
3	Malarial fevers and resulting conditions.....	102.59	.34	.08	2.99
4	Typho-malarial fever.....	.63	.15	.....	.09
5	Diarrhoea, including cholera morbus.....	129.60	.15	.39	1.57
6	Dysentery.....	9.10	.15	.11	.49
7	Other miasmatic diseases.....	.13	.08	.....	.01
8	Gonorrhoea and results.....	32.51	.....	.97	1.81
9	Syphilis and results.....	22.99	.....	3.60	2.10
10	Other venereal diseases.....	18.88	.....	.08	1.20
11	Vaccina.....	22.61	.....	.....	.74
12	Other enthetic diseases.....	2.47	.....	.....	.07
13	Alcoholism.....	46.30	.15	.15	.48
14	Other dietic diseases.....	.76	.....	.04	.03
15	Rheumatism, including muscular.....	85.15	.04	2.85	4.09
16	Other constitutional diseases.....	3.57	.19	.53	.30
17	Developmental diseases.....	.50	.04	.83	.06
18	Parasitic diseases.....	3.27	.....	.....	.07
19	Headache and neuralgia.....	56.88	.....	.46	1.01
20	Other diseases of the nervous system.....	11.91	.64	3.76	1.06
21	Diseases of the eye.....	22.78	.....	1.14	1.08
22	Diseases of the ear.....	6.50	.....	.46	.28
23	Catarrhs and common colds.....	29.74	.....	.....	.41
24	Bronchitis.....	68.92	.04	.57	1.46
25	Pneumonia.....	4.15	.99	.....	.40
26	Pulmonary phthisis.....	3.40	.49	1.82	.70
27	Pleuritis.....	2.47	.....	.08	.14
28	Other diseases of the respiratory system.....	6.04	.08	.30	.31
29	Diseases of the heart and valves.....	6.21	.61	1.40	.56
30	Other diseases of the circulatory system.....	1.30	.04	.30	.20
31	Tonsillitis.....	36.03	.....	.04	.63
32	Dyspepsia, colic, and constipation.....	53.73	.....	.11	.75
33	Other diseases of the digestive system.....	61.11	.42	1.56	1.63
34	Diseases of the kidneys.....	2.18	.23	.34	.27
35	Other diseases of the genito-urinary system (non-venereal).....	15.14	.....	1.25	1.11
36	Diseases of the locomotor system (excluding muscular rheumatism).....	5.87	.....	1.59	.58
37	Diseases of the integumentary system.....	79.44	.....	.19	2.35
38	All other diseases.....	23.03	.04	.34	1.03
39	Heat-stroke.....	1.89	.....	.....	.03
40	Frost-bite and general freezing.....	4.49	.08	.04	.23
41	Contusions and sprains.....	137.24	.....	.27	3.77
42	Dislocations.....	2.35	.....	.08	.23
43	Fractures (not gunshot).....	6.67	.04	.42	1.12
44	Incised, contused, lacerated, and punctured wounds.....	49.28	.08	.11	1.59
45	Shot wounds.....	4.61	.99	.53	.66
46	All other injuries.....	38.38	1.29	1.06	1.05
	Total for disease.....	1,001.97	5.65	24.58	33.70
	Total for injury.....	244.91	2.47	2.50	8.64
	Total for all causes.....	1,246.88	8.12	27.08	42.38

Table showing for the white and colored troops separately, the causes, and Ratios per effectiveness for

Causes of admission to sick report.		The whole Army.			
		Admitted.	Died.	Discharged.	Constantly non-effective.
1 Enteric fever.....	7.30	.64			.94
2 Other specific febrile and acute infectious diseases, including erysipelas.....	16.78	.15	.04		.63
3 Malarial fevers and resulting conditions.....	102.59	.34	.08		2.99
4 Typho-malarial fever.....	.63	.15			.09
5 Diarrhoea, including cholera morbus.....	129.60	.15	.39		1.57
6 Dysentery.....	9.10	.15	.11		.49
7 Other miasmatic diseases.....	.13	.08			.01
8 Gonorrhoea and results.....	32.51		.97		1.81
9 Syphilis and results.....	22.96		3.40		2.10
10 Other venereal diseases.....	18.88		.08		1.90
11 Vaccina.....	22.61				.74
12 Other enthetic diseases.....	2.47				.07
13 Alcoholism.....	46.30	.15	.15		.48
14 Other dietic diseases.....	.76		.04		.03
15 Rheumatism, including muscular.....	85.15	.04	9.85		4.09
16 Other constitutional diseases.....	3.57	.19	.53		.30
17 Developmental diseases.....	.50	.04	.83		.06
18 Parasitic diseases.....	3.27				.07
19 Headache and neuralgia.....	56.88		.46		1.01
20 Other diseases of the nervous system.....	11.91	.64	3.76		1.06
21 Diseases of the eye.....	22.78		1.14		1.08
22 Diseases of the ear.....	6.56		.46		.38
23 Catarrhs and common colds.....	29.74				.41
24 Bronchitis.....	68.92	.04	.57		1.46
25 Pneumonia.....	4.15	.09			.49
26 Pulmonary phthisis.....	3.40	.49	1.82		.70
27 Pleuritis.....	2.47		.08		.14
28 Other diseases of the respiratory system.....	6.04	.08	.39		.31
29 Diseases of the heart and valves.....	6.21	.61	1.40		.56
30 Other diseases of the circulatory system.....	1.30	.04	.39		.30
31 Tonsillitis.....	36.03		.04		.65
32 Dyspepsia, colic, and constipation.....	53.73		.11		.75
33 Other diseases of the digestive system.....	61.11	.42	1.56		1.83
34 Diseases of the kidneys.....	2.18	.23	.34		.27
35 Other diseases of the genito-urinary system (non-venereal).....	15.14		1.25		1.11
36 Diseases of the locomotor system (excluding muscular rheumatism).....	5.87		1.59		.58
37 Diseases of the integumentary system.....	79.44		.19		2.25
38 All other diseases.....	23.03	.04	.34		1.03
39 Heat-stroke.....	1.89				.03
40 Frost-bite and general freezing.....	4.49	.08	.04		.23
41 Contusions and sprains.....	137.24		.27		3.77
42 Dislocations.....	2.35		.08		.23
43 Fractures (not gunshot).....	6.67	.04	.43		1.12
44 Incised, contused, lacerated, and punctured wounds.....	49.28	.08	.11		1.59
45 Shot wounds.....	4.61	.99	.53		.66
46 All other injuries.....	38.38	1.29	1.06		1.03
Total for disease.....	1,001.97	5.65	24.58		33.70
Total for injury.....	244.91	2.47	2.50		8.68
Total for all causes.....	1,246.88	8.12	27.08		42.38

1,000 of mean strength, of admissions to sick report, deaths, discharges and constant non-the year 1887.

White Troops.				Colored Troops.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted	Died.	Discharged.	Constantly non-effective.
7.50	.63	.....	.90	5.36	.82	.....	.72
15.37	.17	.04	.59	30.36	.....	.....	1.01
101.43	.33	.08	2.93	113.84	.41	.....	3.56
.60	.13	.....	.08	.89	.41	.....	.17
130.55	.17	.29	1.55	120.54	.....	.41	1.72
9.12	.13	.13	.50	8.93	.41	.....	.39
.14	.08	.....	.01	.....	.....	.....	.....
32.45	.....	.29	1.85	33.04	.....	.....	1.49
22.31	.....	3.51	2.03	29.46	.....	4.53	2.78
17.30	.....	.08	1.05	33.48	.....	.....	2.65
22.45	.....	.....	.75	24.11	.....	.....	.61
2.50	.....	.....	.07	2.23	.....	.....	.02
50.88	.17	.17	.53	2.23	.....	.....	.02
.84	.....	.04	.02	.....	.....	.....	.....
81.76	.04	2.76	4.02	117.86	.....	3.71	4.73
3.06	.12	.38	.27	8.48	.82	2.06	.64
.51	.01	.84	.06	.45	.....	.82	.02
3.61	.....	.....	.07	.....	.....	.....	.....
54.40	.....	.42	.98	80.80	.....	.82	1.30
12.04	.67	3.68	1.09	10.71	.41	4.53	.78
22.27	.....	1.09	1.07	27.68	.....	1.05	1.25
6.00	.....	.50	.30	2.06	.....	.....	.06
29.12	.....	.....	.41	35.71	.....	.....	.44
66.99	.04	.54	1.42	87.50	.....	.82	1.83
3.98	.88	.....	.40	5.80	2.06	.....	.41
3.10	.46	1.71	.61	6.25	.82	2.88	1.44
2.27	.....	.08	.13	4.46	.....	.....	.23
5.14	.04	.33	.32	14.73	.41	.....	.17
6.25	.67	1.34	.57	5.80	.....	2.06	.45
1.39	.04	.33	.22	.45	.....	.....	.02
34.67	.....	.04	.63	49.11	.....	.....	.80
51.99	.....	.13	.75	70.54	.....	.....	.74
61.34	.38	1.67	1.91	58.93	.82	.41	1.08
2.13	.21	.33	.27	2.68	.41	.41	.10
14.81	.....	1.17	1.13	18.30	.....	2.06	.89
5.83	.....	1.67	.60	6.25	.....	.82	.36
81.85	.....	.21	2.29	56.25	.....	.....	1.81
23.56	.04	.29	1.03	17.86	.....	.82	1.09
2.04	.....	.....	.03	.45	.....	.....	.....
3.29	.04	.04	.21	16.07	.41	.....	.42
134.72	.....	.25	3.72	161.61	.....	.41	4.16
2.45	.....	.08	.25	1.34	.....	.....	.04
7.08	.04	.38	1.16	2.68	.....	.82	.77
47.08	.08	.13	1.56	70.54	.....	.....	1.83
3.80	.88	.46	.52	12.50	2.06	1.24	2.05
38.52	1.38	1.13	1.06	37.05	.41	.41	.96
992.45	5.43	24.15	33.48	1,093.75	7.83	28.83	35.84
238.97	2.42	2.46	8.52	302.23	2.88	2.88	10.23
1,231.42	7.85	26.61	41.99	1,395.98	10.71	31.71	46.07

Table showing, for each region and each military station therein,

Names of regions and military stations.		Fort Columbus, N. Y.				Fort Schuyler, N. Y.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....	13.07			1.36				
3	Malarial fevers and resulting conditions.....	26.14			.38	14.49			.75
4	Typho-malarial fever.....								
5	Diarrhœa, including cholera morbus.....	143.79			1.72	260.87			3.34
6	Dysentery.....	19.61			.43	14.49			.99
7	Other miasmatic diseases.....		6.54						
8	Gonorrhœa and results.....	13.07			.43	28.99			1.29
9	Syphilis and results.....	13.07			.52				
10	Other venereal diseases.....	13.07			.45				
11	Vaccina.....	45.75			1.29				
12	Other enthetic diseases.....								
13	Alcoholism.....	91.50			.47	28.99			.06
14	Other dietic diseases.....								
15	Rheumatism, including muscular.....	45.75			1.77	130.43			3.61
16	Other constitutional diseases.....								
17	Developmental diseases.....								
18	Parasitic diseases.....	6.54			.16				
19	Headache and neuralgia.....	19.61			.38	43.48			2.66
20	Other diseases of the nervous system.....	19.61			1.40	14.49	14.49		.32
21	Diseases of the eye.....	39.22			.68	28.99			.44
22	Diseases of the ear.....	26.14			.38				
23	Catarrhs and common colds.....	39.22			.50	72.46			.36
24	Bronchitis.....	58.82			.79	144.93			2.18
25	Pneumonia.....					14.49			2.38
26	Pulmonary phthisis.....	6.54			.30				
27	Pleuritis.....	6.54			.11	14.49			3.85
28	Other diseases of the respiratory system.....	19.61		13.07	.30	14.49			.32
29	Diseases of the heart and valves.....	6.54			.27	14.49			.16
30	Other diseases of the circulatory system.....								
31	Tonsillitis.....	13.07			.14	14.49			.16
32	Dyspepsia, colic, and constipation.....	52.29			.36	72.46			.71
33	Other diseases of the digestive system.....	78.43		6.54	2.10	28.99			.40
34	Diseases of the kidneys.....	6.54			.14				
35	Other diseases of the genito-urinary system (non-venereal).....	13.07			1.16	14.49		14.49	2.34
36	Diseases of the locomotor system (excluding muscular rheumatism).....							14.49	2.86
37	Diseases of the integumentary system.....	32.68			.93	43.48			1.99
38	All other diseases.....					14.49		14.49	.48
39	Heat-stroke.....					57.97			.91
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	91.50			3.37	101.45			.95
42	Dislocations.....								
43	Fractures (not gunshot).....	6.54			.30				
44	Incised, lacerated, contused, and punctured wounds.....	13.07			.84	72.46			4.37
45	Shot wounds.....	6.54			.11				
46	All other injuries.....	26.14		6.54	1.20	72.46		14.49	1.11
Total for disease.....		869.28	6.54	19.61	18.06	1,028.98	14.49	43.48	31.84
Total for injury.....		143.79		6.54	5.91	304.35		14.49	7.35
Total for all causes.....		1,013.07	6.54	26.14	24.87	1,333.33	14.49	57.97	39.19

per 1,000 of mean strength, of admissions to sick report, deaths, discharges, and constant for the year 1887.

Fort Warren, Mass.				Watertown Arsenal, Mass.				Fort Adams, R. I.				Fort Trumbull, Conn.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
															1
								38.30			1.88				2
				60.61			.66	12.77			.80				3
															4
178.08			1.05	30.30			.17	72.34			.64	71.43			.47
															5
54.79			2.40	30.30			1.33	12.77			.86				6
13.70			.08	60.61	30.30	20.00		8.51			1.11	14.29			.43
								8.51			.53				8
41.10			.49								.38				9
															10
93.80			.83	121.21			.50	68.09			1.28				11
															12
68.49			.68	181.81			7.97	59.57			1.75	42.86	14.29	7.59	13
								25.53			.64				14
										4.26					15
															16
41.10			.31					34.04			1.17	42.86			.12
															17
				151.51	30.30	8.47						14.29			.35
13.70			.08					8.51		4.26	.49				20
								8.51			.49				21
109.59			.71	181.81			2.91	4.26			.12	14.29			.08
41.10			.49	60.61			1.25	25.53			.90	57.14			.86
								21.28			2.35				24
	13.70														25
															26
															27
								55.32			4.05	14.29			.12
				30.30			.50	4.26		4.26	.37				28
															29
			13.70												30
13.70								21.28			.27	14.29			.12
			.08												31
27.40				30.30			.58	38.30			1.15	28.57			.70
			.08												32
41.10			.26	60.61			4.15	80.85			1.74				33
															34
				90.91			2.32	25.53		12.77	2.70				35
															36
								12.77			3.88				37
68.49			1.13	30.30			.58	51.06			1.60	42.86			.47
								38.30			.31				38
															39
															40
109.59			3.75	60.61			1.25	93.62			2.94	100.00			3.87
13.70			1.28					4.26			.93				41
41.10			6.61					4.26			1.68				42
															43
27.40			9.46	30.30			1.00	51.06			1.76				44
								4.26			.05	14.29		14.29	5.17
82.19			.45	121.21			13.70	25.53			.40				45
															46
808.22	13.70		22.37	1,121.21	60.61	51.39		736.17	25.53	31.49	357.14	14.29	14.29	11.32	
273.97			21.54	212.12		15.94		182.98		7.75	114.29		14.29	9.04	
1,082.19	13.70		43.91	1,333.33	60.61	67.33		919.15		25.53	39.24	471.43		28.57	20.36

Table showing, for each region and each military station therein,

Names of regions and military stations.		Willels Point, N. Y.				New York City, N. Y.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....	5.26			2.25				
3	Malarial fevers and resulting conditions.....	102.63			2.82	16.39			.27
4	Typho-malarial fevers.....								
5	Diarrhoea, including cholera morbus.....	480.48			4.39				
6	Dysentery.....	23.68	2.63	2.63	2.26				
7	Other miasmatic diseases.....								
8	Gonorrhoea and results.....	42.11			3.50				
9	Syphilis and results.....	18.42		10.53	1.83				
10	Other venereal diseases.....	26.32			2.29				
11	Vaccina.....								
12	Other enthetic diseases.....								
13	Alcoholism.....	171.05			1.62				
14	Other dietic diseases.....								
15	Rheumatism, including muscular.....	139.47			4.69				
16	Other constitutional diseases.....	2.63			.06				
17	Developmental diseases.....	5.26		7.89	1.23				
18	Parasitic diseases.....								
19	Headache and neuralgia.....	55.26			.66				
20	Other diseases of the nervous system.....	13.16		5.26	.50				
21	Diseases of the eye.....	13.16			.53				
22	Diseases of the ear.....	23.68			.39				
23	Catarrhs and common colds.....	5.26			.09				
24	Bronchitis.....	336.81			4.09	32.79			.54
25	Pneumonia.....	2.63			.21				
26	Pulmonary phthisis.....	2.63	1.63	5.26	.66	16.39			.90
27	Pleuritis.....								
28	Other diseases of the respiratory system.....	2.63			.09				
29	Diseases of the heart and valves.....								
30	Other diseases of the circulatory system.....	2.63			.01				
31	Tonsillitis.....	34.21			.45				
32	Dyspepsia, colic, and constipation.....	128.95			2.52				
33	Other diseases of the digestive system.....	142.11		7.89	3.78				
34	Diseases of the kidneys.....								
35	Other diseases of the genito-urinary system (non-venereal).....	15.79		2.63	2.24				10.87
36	Diseases of the locomotor system (excluding muscular rheumatism).....	5.26		2.63	.50				
37	Diseases of the integumentary system.....	171.05			4.46				
38	All other diseases.....	18.42			.24				
39	Heat-stroke.....								
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	223.69			4.77				
42	Dislocations.....								
43	Fractures (not gunshot).....				.02				
44	Inclosed, lacerated, contused, and punctured wounds.....	47.37			1.49				
45	Shot wounds.....			2.63					
46	All other injuries.....	71.05	5.26		1.24				
	Total for disease.....	2,000.02	5.26	44.74	46.97	65.57			12.67
	Total for injury.....	542.11	5.26	2.63	7.53				
	Total for all causes.....	2,542.13	10.52	47.37	54.50	65.57			12.67

the causes and ratios per 1,000 of mean strength, etc.—Continued

Fort Monroe, Va.				St. Francis Barracks, Fla.				In the field, Atlantic Coast.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
81.71	3.89		10.32								
77.82			1.40								
31.13			.28	343.75			8.10	133.33			.55
214.01			1.45	177.08			1.00	600.00			2.00
11.07			.37	31.25			.31	66.67			1.10
19.46			.98	20.83			.97				
15.56			.62	72.92			2.48				
23.35			1.35								
7.78			.07								
120.62			.82	197.92			1.68				
73.93			2.11	177.08	20.83		5.22				
3.89		3.89	.01								
3.89			.03								
38.91			.44	93.75			1.06				
19.46		3.89	.95	10.42		10.42	.01				
15.56			.05								
3.89			.03								
38.91			.17	20.83			.09				
54.47		3.89	1.41	31.25			1.26				
			.14								
3.89			.01								
3.89			.02								
		3.89	1.08	10.42			.11				
11.07			.16	20.81			.29				
73.93			.39	52.08			.31				
31.13			1.07	52.08		10.42	9.47				
19.46			.35	31.25		10.42	1.14				
42.80			3.58								
81.71			2.13	114.58			1.83	66.67			.18
73.93			3.30	10.42			.06	66.67			.18
105.06			2.47	197.92			5.16				
3.89			8.30					66.67			.37
62.26			2.76	21.83			.17				
31.13	7.78		.50	31.25		10.42	.17				
1,198.44	3.89	15.56	35.10	1,468.75		52.08	35.44	933.33			4.02
202.34	7.78		6.57	259.00		10.42	5.51	66.67			.37
1,400.78	11.07	15.56	41.67	1,718.75		62.50	40.95	1,000.00			4.39

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Eastern Timbered Plains and Hills.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	4.36	1.09		.67
2	Other specific febrile and acute infections diseases, including erysipelas	20.72			.74
3	Malarial fevers and resulting conditions	263.90	1.09		4.61
4	Typho-malarial fever				
5	Diarrhoea, including cholera morbus	200.65			2.70
6	Dysentery	5.45			.14
7	Other miasmatic diseases				
8	Gonorrhoea and results	25.08			1.47
9	Syphilis and results	35.99		4.36	3.12
10	Other venereal diseases	10.91			.45
11	Vaccina	4.36			.64
12	Other enthetic diseases				
13	Alcoholism	37.08			.48
14	Other dietetic diseases	4.36			.15
15	Rheumatism, including muscular	88.33		2.18	2.16
16	Other constitutional diseases	4.36			.31
17	Developmental diseases				
18	Parasitic diseases	4.36			.11
19	Headache and neuralgia	54.53			.65
20	Other diseases of the nervous system	12.00	2.18	2.18	.38
21	Diseases of the eye	18.54			.68
22	Diseases of the ear	4.36			.08
23	Catarrhs and common colds	53.44			.48
24	Bronchitis	118.87			2.49
25	Pneumonia	6.54	2.18		.37
26	Pulmonary phthisis	4.36	1.09	1.09	.51
27	Pleuritis	4.36			.18
28	Other diseases of the respiratory system	2.18			.10
29	Diseases of the heart and valves	8.72	1.09	1.09	1.11
30	Other diseases of the circulatory system				
31	Tonsillitis	20.72			.22
32	Dyspepsia, colic, and constipation	52.34			.63
33	Other diseases of the digestive system	62.16		1.09	2.40
34	Diseases of the kidneys	3.27			.35
35	Other diseases of the genito-urinary system (non-venereal)	14.18		1.09	.47
36	Diseases of the locomotor system (excluding muscular rheumatism)	1.09		1.09	.24
37	Diseases of the integumentary system	70.88			1.55
38	All other diseases	10.91			.39
39	Heat-stroke	3.27			.02
40	Frost bite and general freezing				
41	Confusion and sprains	93.78			2.81
42	Dislocations	2.18		1.09	.18
43	Fractures (not gunshot)	6.54			1.02
44	Incised, lacerated, contused, and punctured wounds	50.16			.90
45	Shot wounds	3.27			.13
46	All other injuries	34.90	1.09	1.09	.61
Total for disease		1,233.37	8.72	14.18	29.45
Total for injury		194.11	1.09	2.18	5.66
Total for all causes		1,427.48	9.81	16.36	35.11

causes and ratios per 1,000 of mean strength, etc.—Continued.

West Point, N. Y.				Frankford Arsenal, Pa.				Kennebec Arsenal, Me.				Springfield Armory, Mass.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
			.09												
3.05			.09									150.00			1.51
125.00			1.70	58.82			.32	62.50		7.70		150.00			5.82
109.76			.91	58.82			.48	187.50		.68		75.00			.68
3.05			.04												
3.05			.05												
6.10			.43									25.00			.41
6.10			.04									125.00			1.03
82.32			2.21	205.83			9.67	250.00		3.42		75.00			1.10
3.05			.01									25.00			2.26
67.07			.62									200.00			5.00
12.20		3.05	.52					125.00		1.54		25.00			
27.44			.43												
6.10			.12												
27.44			.21	117.65			.89	750.00		5.65		25.00			.55
146.34			1.29	117.65			1.53	250.00		1.71					
3.05			.07	29.41	29.41		.64								
9.15	3.05		.73												
6.10			.23					62.50		.51					
3.05			.07												
15.24	3.05		1.80	58.82			10.15					25.00			1.30
30.49			.25	58.82			.48	62.50		.17		25.00			.21
79.27			.57					62.50		.17		50.00			.34
67.07			2.90	88.24			1.53	312.50		1.20		25.00			.21
3.05			.54												
12.20			.11	58.82			.56								
			.49												
54.88			.87	29.41			.32	62.50		.51					
6.10			.04	58.82			1.93	250.00		2.91					
112.80			2.46									50.00			1.64
3.05			.92												
57.93			1.39	29.41			.56					25.00			.27
33.54			.49	29.41			.16	62.50		.86		50.00			1.10
911.59	6.10	3.05	17.38	941.18	29.41		28.53	2,437.50		26.20		975.00	25.00		20.41
213.41			5.31	58.82			.73	62.50		.86		125.00			3.91
1,125.00	6.10	3.05	22.69	1,040.00	29.41		29.28	2,500.00		27.06		1,100.00	25.00		23.42

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Philadelphia, Pa.				Fort McHenry, Md.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....					59.83			2.46
3	Malarial fevers and resulting conditions.....					213.68			4.89
4	Typho-malarial fever.....								
5	Diarrhœa, including cholera morbus.....					111.11			1.17
6	Dysentery.....					8.55			.33
7	Other miasmatic diseases.....								
8	Gonorrhœa and results.....					94.02			5.13
9	Syphilis and results.....					76.92		17.09	5.36
10	Other venereal diseases.....					8.55			.28
11	Vaccina.....					34.19			.35
12	Other enthetic diseases.....								
13	Alcoholism.....					34.19			.49
14	Other dietic diseases.....					8.55			.16
15	Rheumatism, including muscular.....					76.92		8.55	3.35
16	Other constitutional diseases.....								
17	Developmental diseases.....								
18	Parasitic diseases.....					17.09			.44
19	Headache and neuralgia.....					111.11			1.24
20	Other diseases of the nervous system.....					17.09	8.55	8.55	.98
21	Diseases of the eye.....					42.74			3.54
22	Diseases of the ear.....								
23	Catarrhs and common colds.....					8.55			.02
24	Bronchitis.....					230.77			8.92
25	Pneumonia.....					17.09	8.55		.61
26	Pulmonary phthisis.....								
27	Pleuritis.....					8.55			.68
28	Other diseases of the respiratory system.....								
29	Diseases of the heart and valves.....								.14
30	Other diseases of the circulatory system.....								
31	Tonsillitis.....					34.19			.61
32	Dyspepsia, colic, and constipation.....					25.64			.31
33	Other diseases of the digestive system.....					94.02			3.63
34	Diseases of the kidneys.....								
35	Other diseases of the genito-urinary system (non-venereal).....					17.09			1.12
36	Diseases of the locomotor system (excluding muscular rheumatism).....							8.55	.42
37	Diseases of the integumentary system.....					111.11			1.92
38	All other diseases.....					8.55			.28
39	Heat-stroke.....								
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....					51.28			6.04
42	Dislocations.....					8.55			1.04
43	Fractures (not gunshot).....					8.55			1.40
44	Incised, lacerated, contused, and punctured wounds.....					42.74			.52
45	Shot wounds.....					17.09			.66
46	All other injuries.....					34.19	8.55		.96
Total for disease.....						1,470.09	17.09	42.74	49.01
Total for injury.....						162.39	8.55		10.66
Total for all causes.....						1,632.48	25.64	42.72	59.67

causes and ratios per 1,000 of mean strength, etc.—Continued.

Fort Myer, Va.				Washington Barracks, D. C.				Augusta Arsenal, Ga.				In the field, Eastern Tim bered Plains and Hills.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
15.63			2.01	11.24	3.75		1.71								1
15.63			.34	11.24			.80	37.04			2.54				2
281.25	15.62		3.98	550.56			9.26					500.00		1.37	3
546.88			2.95	325.84			3.22	111.11			.41	500.00		1.37	4
15.63			.09	7.49			.27								5
															6
78.13			3.21	22.47			1.97								7
31.25	15.62		.60	82.40		3.75	8.21								8
62.50			2.65	7.49			.22								9
															10
15.63			.04	82.40			1.21								11
				11.24			.43								12
78.12			4.24	89.89		3.75	1.52	74.07			1.32				13
15.63			1.24	3.75			.08								14
				7.49			.19								15
31.25			.13	14.98			.15	37.04			.10				16
				11.24			.15								17
15.63			.17	11.24			.28								18
15.63			.09	3.75			.02								19
31.25			.09	78.65			.84								20
15.63			.56	86.14			2.67	37.04			.51				21
				3.75			.34								22
								37.04		37.04	8.52				23
															24
				3.75			.26								25
						3.75	.05								26
				3.75			.08								27
46.88			.43	44.94			1.13	37.04			.30				28
78.12			3.55	29.96		3.75	1.70	74.07			2.23				29
15.62			.64					37.04			.51				30
31.25	15.63	2.31	3.75				.27	74.07			1.12				31
				3.75			.02								32
156.25			2.57	74.91			2.53	74.07			1.83				33
31.25			1.33	3.75			.49								34
15.62			.04												35
250.00			3.77	89.89			2.80	37.04			.41				36
15.62	15.62		.60												37
15.63			1.07	11.24			1.52								38
															39
78.13			.90	48.69			.72				.51	500.00		2.74	40
				3.75			.15								41
91.75	15.62	2.14	22.47				.26	37.04			.51				42
															43
1,625.00	15.62	31.25	33.22	1,591.76	3.75	14.98	40.09	629.63	37.04	19.38	1,000.00			2.74	44
459.75		31.25	8.52	176.03			5.45	74.07		1.42	500.00			2.74	45
2,093.75	15.62	62.50	41.74	1,707.79	3.75	14.98	45.54	703.70	37.04	20.80	1,500.00			5.48	46

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Appalachian Mountains.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....	29.41	14.71		5.68
2	Other specific febrile and acute infectious diseases, including erysipelas.....	44.12			1.05
3	Malarial fevers and resulting conditions.....	58.82			.36
4	Typho-malarial fever.....				
5	Diarrhoea, including cholera morbus.....	279.41			2.12
6	Dysentery.....				
7	Other miasmatic diseases.....				
8	Gonorrhoea and results.....	14.71			.08
9	Syphilis and results.....	14.71			.16
10	Other venereal diseases.....	29.41			3.26
11	Vaccina.....				
12	Other enthetic diseases.....				
13	Alcoholism.....	14.71			.08
14	Other dietetic diseases.....				
15	Rheumatism, including muscular.....	161.76			1.61
16	Other constitutional diseases.....				
17	Developmental diseases.....				
18	Parasitic diseases.....				
19	Headache and neuralgia.....	88.24			.64
20	Other diseases of the nervous system.....				
21	Diseases of the eye.....				
22	Diseases of the ear.....				
23	Catarrhs and common colds.....	14.71			.08
24	Bronchitis.....	102.94			1.13
25	Pneumonia.....	29.41	29.41		.60
26	Pulmonary phthisis.....				
27	Pleuritis.....				
28	Other diseases of the respiratory system.....				
29	Diseases of the heart and valves.....				
30	Other diseases of the circulatory system.....				
31	Tonsillitis.....	29.41			.60
32	Dyspepsia, colic, and constipation.....	29.41			.12
33	Other diseases of the digestive system.....	73.53			2.74
34	Diseases of the kidneys.....				
35	Other diseases of the genito-urinary system (non-venereal).....				
36	Diseases of the locomotor system (excluding muscular rheumatism).....	29.41			1.77
37	Diseases of the integumentary system.....	14.71			.44
38	All other diseases.....				
39	Heat-stroke.....				
40	Frost-bite and general freezing.....				
41	Contusions and sprains.....	88.24			1.93
42	Dislocations.....				
43	Fractures (not gunshot).....	44.12			.68
44	Incised, lacerated, contused, and punctured wounds.....				
45	Shot wounds.....				.60
46	All other injuries.....	58.82			
Total for disease.....		1,058.82	44.12		22.85
Total for injury.....		191.18			3.22
Total for all causes.....		1,250.00	44.12		26.07

causes and ratios per 1,000 of mean strength, etc.—Continued.

Watervliet Arsenal, N. Y.				Allegheny Arsenal, Pa.				Northern Lakes.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
25.00	8.90	35.71	35.71	.....	1.08	2.49	.....	.....	.42
75.00	1.78	.....	.....	.....	.....	10.77	.....	.....	.45
75.0048	35.71	.....	.....	.20	43.91	.....	.....	1.08
375.00	2.94	142.86	.....	.....	1.66	78.71	.....	.....	.62
.....	4.97	.....	.....	.40
25.0014	.....	.....	.....	.....	.83	.83	.....	.10
25.0027	.....	.....	.....	.....	31.86	.....	.83	1.83
50.00	5.54	.....	.....	.....	.....	17.40	.....	3.31	.78
.....	20.71	.....	.83	1.60
.....	15.74	.....	.....	.24
.....	1.66	.....	.....	.01
.....	35.71	.....	.....	.20	39.77	.....	.83	.30
.....
200.00	1.71	107.14	.....	.....	1.47	47.22	.....	2.19	1.74
.....	2.49	.....	.....	.07
.....	2.49	.....	1.66	.08
.....	5.80	.....	.....	.07
100.0068	71.43	.....	.....	.59	35.63	.....	.83	.67
.....	8.29	.....	.....	.98
.....	21.54	.....	1.66	1.04
.....83	.....	.....	.02
25.0014	.....	.....	.....	.....	23.20	.....	.....	.28
125.00	1.03	71.43	.....	.....	1.27	52.20	.....	.....	.72
50.00	25.00	.....	1.03	.....	35.71	.....	.....	.83	.....	.....	.15
.....	4.14	.83	2.49	.35
.....	1.66	.....	.....	.02
.....	5.80	1.66	.....	.23
.....	7.46	.....	1.66	.89
.....83	.....	.83	.15
25.0021	35.71	.....	.....	1.17	40.60	.....	.....	.66
50.0021	.....	.....	.....	.....	32.31	.....	.....	.31
75.00	3.97	71.43	.....	.....	.98	53.02	.....	3.31	.94
.....83	.....	.....	.08
.....	14.08	.....	.....	.52
.....
.....	71.43	.....	.....	4.31	2.49	.....	.....	.01
.....	35.71	.....	.....	1.08	51.37	.....	.....	1.40
.....	13.25	.....	.....	.62
.....	1.66	.....	.....	.004
.....	4.97	.....	.....	.37
100.00	2.12	71.43	.....	.....	1.66	93.62	.....	.....	2.49
.....	3.31	.....	.....	.24
75.00	1.16	.....	.....	.....	.....	4.97	.....	.....	.79
.....	51.37	.83	.....	1.40
50.0034	71.43	.....	.....	.98	3.31	1.66	.....	.11
.....	29.00	3.31	.....	.76
1,300.00	25.00	..	29.04	714.28	71.43	.....	13.99	700.08	3.31	20.71	19.55
225.00	8.63	142.86	.....	.....	2.64	192.21	5.80	.....	6.17
1,525.00	25.00	....	32.67	857.14	71.43	.....	16.63	893.29	9.11	20.71	25.72

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Brady, Mich.			Fort Mackinac, Mich.			
Causes of admission to sick report.		Admitted.	Died.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....							
2	Other specific febrile and acute infectious diseases, including erysipelas.....				13.70			.53
3	Malarial fevers and resulting conditions.....	13.89		1.98				
4	Typho-malarial fever.....							
5	Diarrhoea, including cholera morbus.....	194.44		1.33	150.69			.83
6	Dysentery.....	13.89		.04	13.70			.15
7	Other miasmatic diseases.....				13.70			1.58
8	Gonorrhoea and results.....	69.44		2.93	27.40			3.60
9	Syphilis and results.....	41.67		.95	13.70		13.70	1.20
10	Other venereal diseases.....	13.89		.61				
11	Vaccina.....							
12	Other enthetic diseases.....							
13	Alcoholism.....	138.89		.99	41.09			.19
14	Other dietic diseases.....							
15	Rheumatism, including muscular.....	41.67		1.10	82.19		13.70	2.06
16	Other constitutional diseases.....				13.70			.11
17	Developmental diseases.....							
18	Parasitic diseases.....							
19	Headache and neuralgia.....	41.67		.19	68.49		13.70	1.50
20	Other diseases of the nervous system.....							
21	Diseases of the eye.....	27.78		.19	13.70		13.70	.08
22	Diseases of the ear.....							
23	Catarrhs and common colitis.....	55.56		.99	13.70			.04
24	Bronchitis.....	152.77		1.37	82.19			1.54
25	Pneumonia.....							
26	Pulmonary phthisis.....							
27	Pleuritis.....	13.89		.11				
28	Other diseases of the respiratory system.....							
29	Diseases of the heart and valves.....							
30	Other diseases of the circulatory system.....							
31	Tonsillitis.....	27.78		.27	41.09			.38
32	Dyspepsia, colic, and constipation.....	41.67		.15	13.70			.11
33	Other diseases of the digestive system.....	138.89		.65	95.89			.61
34	Diseases of the kidneys.....							
35	Other diseases of the genito-urinary system (non-venereal).....	27.78		1.29				
36	Diseases of the locomotor system (excluding muscular rheumatism).....							
37	Diseases of the integumentary system.....	82.33		1.64				
38	All other diseases.....				13.70			.08
39	Heat-stroke.....							
40	Frost-bite and general freezing.....				13.70			1.58
41	Contusions and sprains.....	208.33		3.96	68.49			3.34
42	Dislocations.....				27.40			1.09
43	Fractures (not gunshot).....				13.70			3.34
44	Incised, lacerated, contused, and punctured wounds.....	111.11		1.52	109.59			1.61
45	Shot wounds.....							
46	All other injuries.....	41.67		.65	41.09	13.70		4.92
Total for disease.....		1,138.89		16.78	712.33		54.80	14.60
Total for injury.....		361.11		6.12	273.97	13.70		15.88
Total for all causes.....		1,500.00		22.90	986.30	13.70	54.80	30.48

causes, and ration per 1,000 of mean strength, etc.—Continued.

Saint Paul, Minn.				Fort Snelling, Minn.				Plattsburgh Barracks, N. Y.				Madison Barracks, N. Y.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
				10.00			1.67								1
				20.00			.06	24.39		1.00					2
				3.33			.01					62.22			3
															4
				26.67			.32	48.78		.27	106.67				5
				3.33			.02				8.89				6
											4.44				7
				16.67			.45	48.78		2.61	8.89				8
				16.67		10.00	.59	24.39		.35	13.33				9
				13.33			1.18	24.39		1.40	22.22				10
											13.33				11
				6.67			.05								12
								48.78		.33	57.78				13
															14
				35.67			.63	48.78		.27	84.44		8.89	4.99	15
				3.33			.15								16
				3.33		3.33	.16								17
											4.44				18
				20.00			.23	48.78		.53	48.89				19
				6.67			.16	24.39		10.62					20
				10.00		3.33	.30	24.39		.40	20.67				21
				3.33			.08								22
											66.67			.71	23
				13.33			.33				20.67			.50	24
				3.33			.59								25
				6.67	3.33	3.33	.83								26
				3.33			.07								27
				13.33			.59								28
				13.33		6.67	3.21				13.33	4.44		.12	29
				3.33		3.33	.62								30
				23.33			.45	24.39		.27	20.67			.52	31
				40.00			.37	24.39		.13	35.56			.50	32
34.48		.09		50.00		6.67	1.17				40.00			.63	33
				3.33			.33								34
															35
				10.00			.60				4.44			.09	36
															37
				61.33			1.42	48.78		.40	40.00			2.65	38
				13.33			.65	24.39		1.54	17.78			.65	39
															40
				10.00			.79				4.44			.33	41
				70.00			1.32	48.78		.33	120.00			4.80	42
				3.33			.49				4.44			.51	43
															44
				70.00	3.33		2.22	73.17		4.28	62.22			2.00	45
				13.33			.43								46
				20.00			.15	24.39		.20	17.78			.24	47
34.48		.69		460.00	3.33	36.67	18.00	487.81		20.31	728.89	8.89	8.89	21.65	48
				186.67	3.33		5.41	146.34		4.81	208.89			7.04	49
34.48		.69		616.67	6.67	36.67	23.41	634.15		25.12	937.78	8.89	8.89	29.50	50

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Ontario, N. Y.				Fort Niagara, N. Y.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infections								
3	diseases, including erysipelas.....	24.39			.80				
4	Malarial fevers and resulting conditions.....	97.56			.60				
5	Typho-malarial fever.....								
6	Diarrhœa, including cholera morbus.....	48.78			.27	126.44			.75
7	Dysentery.....								
8	Other miasmatic diseases.....								
9	Gonorrhœa and results.....	73.17			3.01				
10	Syphilis and results.....	97.56			4.54				
11	Other venereal diseases.....	24.39	24.39		6.75				
12	Vaccina.....								
13	Other enthetic diseases.....								
14	Alcoholism.....	121.95			.87	34.48			.13
15	Other dietic diseases.....								
16	Rheumatism, including muscular.....	24.39			.33	11.49			.06
17	Other constitutional diseases.....								
18	Developmental diseases.....					22.09	11.49		.60
19	Parasitic diseases.....								
20	Headache and neuralgia.....	73.47			.47				
21	Other diseases of the nervous system.....					22.09			5.64
22	Diseases of the eye.....								
23	Diseases of the ear.....								
24	Catarrhs and common colds.....	146.34			1.07				.63
25	Bronchitis.....	24.39			.80	91.95			1.61
26	Pneumonia.....								
27	Pulmonary phthisis.....					11.49	11.49		.94
28	Pleuritis.....								
29	Other diseases of the respiratory system.....								
30	Diseases of the heart and valves.....								
31	Other diseases of the circulatory system.....								
32	Tonsillitis.....	73.17			.47	114.94			1.83
33	Dyspepsia, colic, and constipation.....	73.17			.27				
34	Other diseases of the digestive system.....				.07	11.49	11.49		1.48
35	Diseases of the kidneys.....								
36	Other diseases of the genito-urinary system (non-venereal).....	48.78			1.34				
37	Diseases of the locomotor system (excluding muscular rheumatism).....								
38	Diseases of the integumentary system.....				3.81	45.98			1.20
39	All other diseases.....					11.49			.09
40	Heat-stroke.....								
41	Frost-bite and general freezing.....								
42	Contusions and sprains.....	48.78			2.14	68.97			1.42
43	Dislocations.....					11.49			.69
44	Fractures (not gunshot).....	24.39			6.48	11.49			1.67
45	Incised, lacerated, contused, and punctured wounds.....	48.78			.27	34.48			.98
46	Shot wounds.....		24.39			11.49			.16
	All other injuries.....								
	Total for disease.....	951.22		24.39	25.46	505.75		34.48	14.46
	Total for injury.....	121.95	24.39		8.80	137.93			4.91
	Total for all causes.....	1,073.17	24.39	24.39	34.35	643.68		34.48	19.37

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Porter, N. Y.				Fort Wayne, Mich.				Chicago, Ill.				Camp at Highwood, Ill.			
Admitted.	Died.	Discharged.	Constantly non-effect-ive.	Admitted.	Died.	Discharged.	Constantly non-effect-ive.	Admitted.	Died.	Discharged.	Constantly non-effect-ive.	Admitted.	Died.	Discharged.	Constantly non-effect-ive.
26.67			1.46	6.02			.68	19.61			.54				1
40.00			2.19	156.03			2.54	19.61			.27	83.33			2
26.67			.15	96.30			.69	19.61			.38				3
13.33			.22												4
26.67			1.42	126.51		6.02	7.00								5
53.33			4.00	54.22			1.04								6
106.67			1.24	48.19			2.84								7
53.33			.33	48.19		6.02	.58								8
26.67			.62	60.24			.25								9
13.33			.44				2.83	19.61			1.18	88.33			10
80.00			1.06	54.22			1.85								11
53.33			1.59	18.07			4.46								12
13.33			1.42	72.29			4.62					83.33			13
															14
140.67			1.79	84.34			.09	19.61			1.07	166.67			15
				6.02		6.02	.50	19.61			.11				16
26.67			.56	6.02			.33								17
				12.05	6.02		.33								18
80.00			.84	60.24			1.32	19.61			.54				19
53.33			.40	30.12			.43					83.33			20
26.67			.58	84.32		6.02	1.22	58.82			.04				21
															22
40.00			.65	36.14			1.23								23
				18.07			.10								24
53.33			.44	102.41			1.39								25
			1.35	24.10			1.12					83.33			26
				12.05			.03								27
				6.02			.13								28
173.33			5.03	114.46			1.60					166.67			29
13.33			2.01												30
															31
26.67			.65	6.02			.03								32
40.00	13.33		.37	60.24	12.05		.69	39.22			4.08	83.33			33
				6.02										2.74	34
960.00			23.27	1,228.92	6.02	24.09	33.64	196.08			5.00	583.33			35
253.33	13.33		8.66	198.79	18.07		2.49	39.21			4.08	250.00			36
1,213.33	13.33		31.93	1,427.71	24.09	24.09	36.13	235.29			9.08	833.33			37
															38
															39
															40
															41
															42
															43
															44
															45
															46

12-24-47 4 THE SECRETARY OF WAR

THE COMPANY OF THE CITY OF NEW YORK AND THE CITY OF NEW YORK

[illegible]

the causes, and ratios per 1,000 of mean strength, etc.—Continued.

Central Timbered Plains and Hills.				Columbus Barracks, Ohio.				Newport Barracks, Ky.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
7.64	2.29		1.15								
42.78	.76		2.92	70.18			2.77	25.00			.41
326.20	2.29		13.59	190.48			4.58	150.00			1.71
223.84		.76	4.67	90.23			1.02	50.00			.27
3.82			.12								
118.41		.76	5.96	250.63			12.57				
44.31		8.40	4.21	65.16		25.06	5.82				
45.84			2.30	72.68			3.58				
178.76			7.91	288.22			15.15				
4.58			.09	12.53			.26				
16.04			.20	17.54			.33	25.00			.07
76.39		4.58	5.19	30.08		7.52	1.54	25.00			.34
2.29	.76	.76	.20								
.76	.76	.76	.14								
10.70			.24	30.08			.71				
48.90		2.29	1.17	12.53			.17	25.00			.14
19.86	.76	1.53	2.04	22.56			1.15	50.00			10.27
35.91			1.78	67.67			2.07	25.00			.62
9.17			.25	17.54			.60	25.00			.31
16.04			.57					25.00			.14
58.82		1.53	1.62	47.02		2.51	1.55	50.00			1.64
17.57	3.82		1.59	7.52			.55	25.00			.62
5.35	.76	1.53	1.05	2.51			.78	25.00		25.00	1.09
3.82			.08	5.01			.07	25.00			.14
2.29	.76		.05	5.01			.15				
3.06	.76		.19	5.01			.16				
.76			.32	2.51			1.04				
83.27			1.85	135.34			2.99				
43.54			.85	65.16			.62	50.00			4.66
54.21	1.53		1.65	110.28			2.51	25.00			.48
4.18	.76	.76	.33	10.03	2.51	2.51	.53				
21.39		.76	.90	12.63			.80				
3.82		.76	.33	5.01			.43				
115.36		.76	3.20	50.13			1.48	50.00			.41
18.33		.76	1.12	25.06			2.25	25.00			.07
.76			.05								
3.06			.05								
168.07			4.74	125.31			2.55	25.00			.27
3.06			.26	2.51			.05				
1.53			.62								
42.02		.76	1.37	42.61		2.51	1.96	50.00			.34
3.06		.76	.63	2.51			.92				
54.21	1.53	.76	1.48	42.61	2.51		.78	25.00			.27
1,668.45	16.04	26.74	69.88	1,726.82	2.51	37.59	68.24	700.00		25.00	23.42
275.78	1.53	2.29	9.19	215.54	2.51	2.51	6.27	100.00			.89
1,944.23	17.57	29.03	79.07	1,942.36	5.01	40.10	74.51	800.00		25.00	24.31

Table showing, for each region and each military station therein, the

Names of regions and military stations.	Indianapolis Arsenal, Ind.				Jefferson Barracks, Mo.			
	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
Causes of admission to sick report.								
1 Enteric fever.....					11.90	4.48		1.08
2 Other specific febrile and acute infectious diseases, including erysipelas.....					38.86	1.49		3.99
3 Malarial fevers and resulting conditions.....	206.30			3.35	402.10	4.48		23.29
4 Typho-malarial fever.....								
5 Diarrhoea, including cholera morbus.....	259.26			1.83	325.87			7.52
6 Dysentery.....	37.04			1.62				
7 Other miasmatic diseases.....								
8 Gonorrhoea and results.....					70.26		1.49	3.55
9 Syphilis and results.....					32.89			4.17
10 Other venereal diseases.....					46.34			2.37
11 Vaccina.....					168.91			6.28
12 Other enthetic diseases.....								
13 Alcoholism.....								
14 Other dietetic diseases.....								
15 Rheumatism, including muscular.....	222.22		37.04	16.74	107.63		2.99	7.43
16 Other constitutional diseases.....					2.99			.35
17 Developmental diseases.....								
18 Parasitic diseases.....					2.99			.04
19 Headache and neuralgia.....	296.30			2.13	61.29		4.48	1.72
20 Other diseases of the nervous system.....				.30	22.42	1.49	2.99	2.68
21 Diseases of the eye.....					26.91			2.18
22 Diseases of the ear.....	37.04			1.72	2.99			.09
23 Catarrhs and common colds.....					29.90			1.10
24 Bronchitis.....					77.73		1.49	2.09
25 Pneumonia.....	37.04			1.93	33.92	7.47		2.66
26 Pulmonary phthisis.....					7.47	1.49	1.49	1.52
27 Pleuritis.....					2.99			.11
28 Other diseases of the respiratory system.....					1.49	1.49		.02
29 Diseases of the heart and valves.....					2.99	1.49		.28
30 Other diseases of the circulatory system.....								
31 Tonsillitis.....	148.15			1.52	73.25			1.74
32 Dyspepsia, colic, and constipation.....	37.04			.30	23.92			.60
33 Other diseases of the digestive system.....	111.11			.91	22.42	2.99		1.22
34 Diseases of the kidneys.....	37.04			3.96	1.49			.17
35 Other diseases of the genito-urinary system (non-venereal).....	37.04			6.19	29.90			.95
36 Diseases of the locomotor system (excluding muscular rheumatism).....					4.48		1.49	.40
37 Diseases of the integumentary system.....					161.44		1.49	4.84
38 All other diseases.....	259.26			2.74	7.47		1.49	.72
39 Heat stroke.....					1.49			.11
40 Frost-bite and general freezing.....					4.48			.08
41 Contusions and sprains.....	74.07			5.48	222.72			6.93
42 Dislocations.....					2.99			.45
43 Fractures (not gunshot).....					1.49			.24
44 Incised, lacerated, contused, and punctured wounds.....	37.04			1.22	40.36			1.22
45 Shot wounds.....					4.48		1.49	.60
46 All other injuries.....	111.11			8.45	59.79	1.49	1.49	2.05
Total for disease.....	1,814.82		37.04	45.26	1,795.21	26.91	19.43	84.99
Total for injury.....	222.22			10.15	337.83	1.49	2.99	11.80
Total for all causes.....	2,037.04		37.04	55.41	2,133.03	28.40	22.42	96.79

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Little Rock Barracks, Ark.				Mount Vernon Barracks, Ala.				Gulf Coast.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
19.23			1.69								
9.62			.34					3.33			.13
567.31			6.82	128.57			2.58	203.33	3.33		4.49
163.46			1.63	185.71		14.29	6.42	63.33			.89
38.46			1.13					13.33			.97
57.69			2.74	28.57			1.76	40.00			3.05
86.54	9.62		3.61	14.29			.31	60.00		36.67	10.98
28.85			.53	42.86			.78	36.67			2.67
48.08			.45	14.29			.16	3.33			.02
				114.29			1.17	3.33			.04
57.69			5.95	42.86			1.80	63.33	3.33		.50
	9.62			14.29	14.29		.39	76.67		3.33	3.12
				14.29	14.29	14.29	2.70				
19.23			.63	100.00			2.62	50.00			.81
								13.33			.13
9.62			.18					13.33		3.33	1.33
9.62			.05								
38.46			.40					40.00			.35
19.23			.66					13.33			.52
								10.00		6.67	1.10
								3.33			.06
										3.33	1.87
								3.33			.82
9.62			.05	14.29			.16	10.00			.05
105.77			2.53	14.29			.04	46.47		3.33	.61
57.69			2.42	28.57			.78	50.00		3.33	1.67
								3.33			.16
19.23	9.62		.47					10.00			.95
								3.33			.48
134.62			1.95	100.00			1.96	126.67			2.60
9.62			.11					43.33			2.37
								3.33			.02
9.62			.05								
105.77			1.84	100.00			2.62	133.33			4.39
				14.29			.12	3.33			.25
9.62			.68				8.18	6.67		3.33	.59
38.46			.76	57.14			.91	46.67			1.22
								3.33			.03
67.31			.61	42.86			1.21	13.33			.26
1,509.61	28.85	34.35	857.14	28.57	28.57	23.64	1,006.67	6.67	60.00	42.74	
230.77		3.95	214.29			13.07	210.00		3.33	6.76	
1,740.38	28.85	38.30	1,071.43	28.57	28.57	36.71	1,216.67	6.67	63.33	49.50	

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Barrancas, Fla.				Jackson Barracks, La.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever								
2	Other specific febrile and acute infectious diseases, including erysipelas								
3	Malarial fevers and resulting conditions	123.46			2.67	64.10			1.58
4	Typho-malarial fever								
5	Diarrhœa, including cholera morbus	111.11			1.69	38.46			.25
6	Dysentery					38.46			12.46
7	Other miasmatic diseases								
8	Gonorrhœa and results	24.69			1.15	12.82			.14
9	Syphilis and results					51.28			3.13
10	Other venereal diseases	37.04			3.01	12.82			.67
11	Vaccina					12.82			.07
12	Other enthetic diseases								
13	Alcoholism	37.04			.14	163.67	12.82		1.41
14	Other dietic diseases								
15	Rheumatism, including muscular	12.35			.07	64.10			.67
16	Other constitutional diseases								
17	Developmental diseases								
18	Parasitic diseases								
19	Headache and neuralgia	111.11			1.22	12.82			.07
20	Other diseases of the nervous system	24.69			.20				
21	Diseases of the eye	12.35	12.35		1.25				
22	Diseases of the ear								
23	Catarrhs and common colds					141.03			.67
24	Bronchitis	37.04			1.35	12.82			.60
25	Pneumonia								
26	Pulmonary phthisis	37.04	24.69		4.06				
27	Pleuritis	12.35			.24				
28	Other diseases of the respiratory system								
29	Diseases of the heart and valves								
30	Other diseases of the circulatory system	12.35			3.04				
31	Tonsillitis	24.69			.10				
32	Dyspepsia, colic, and constipation	86.42			1.01	51.28			1.02
33	Other diseases of the digestive system	74.07			3.21	38.46			.28
34	Diseases of the kidneys	12.35			.57				
35	Other diseases of the genito-urinary system (non-venereal)								
36	Diseases of the locomotor system (excluding muscular rheumatism)					12.82			1.86
37	Diseases of the integumentary system	61.73			.85	64.10			2.88
38	All other diseases	37.04			3.75				
39	Heat-stroke								
40	Frost-bite and general freezing								
41	Contusions and sprains	111.11			3.25	64.10			1.65
42	Dislocations								
43	Fractures (not gunshot)								
44	Incised, lacerated, contused, and punctured wounds	24.69			1.12	25.64			.28
45	Shot wounds								
46	All other injuries	12.35			.10				
Total for disease		888.80	37.04	29.60	794.87	12.82		17.74	
Total for injury		148.15		4.46	89.74			1.33	
Total for all causes		1,037.04	37.04	34.06	884.61	12.82		19.07	

New Orleans, La.				Fort Brown, Tex.				In the field, Gulf Coast.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
125.00			4.79	348.48	7.58		7.66				
				53.03			.83				
				7.58			.75				
				68.18			6.14				
125.00			10.62	106.06		83.33	23.10				
				45.45			3.18				
				7.58			.08				
				22.73			.23				
125.00			40.41	121.21		7.58	4.21				
				37.88			1.05				
				15.15			.17				
				22.73			2.26				
				7.58			.39				
						7.58	4.25				
				7.58			.04				
				22.73		7.58	.17				
				45.45		7.58	1.06				
				22.73			2.16				
				212.12			3.69				
				75.76			3.09				
				7.58			.04				
				190.97			7.37				
				7.58			.56				
				15.15		7.58	1.35				
				75.76			1.93				
				7.58			.06				
				22.73			.52				
375.00			55.82	1,250.00	7.58	113.64	65.11				
				333.33		7.58	11.83				
375.00			55.82	1,583.33	7.58	121.21	76.94				

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Prairies.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....	3.96	.25		.68
2	Other specific febrile and acute infectious diseases, including erysipelas.....	12.36		.25	.48
3	Malarial fever and resulting conditions.....	155.25	.25	.25	3.48
4	Typho-malarial fever.....	1.73	.74		.27
5	Diarrhoea, including cholera morbus.....	152.29	.25		1.80
6	Dysentery.....	8.65			.64
7	Other miasmatic diseases.....				
8	Gonorrhoea and results.....	28.68		.49	1.85
9	Syphilis and results.....	27.44		3.71	3.05
10	Other venereal diseases.....	14.09			1.92
11	Vaccina.....	7.91			.19
12	Other enthetic diseases.....	2.47			.64
13	Alcoholism.....	41.78			.36
14	Other dietetic diseases.....				
15	Rheumatism, including muscular.....	84.05		1.73	4.41
16	Other constitutional diseases.....	3.96		.74	.37
17	Developmental diseases.....			.99	
18	Parasitic diseases.....	2.47			.02
19	Headache and neuralgia.....	62.05			1.01
20	Other diseases of the nervous system.....	9.89		3.46	1.25
21	Diseases of the eye.....	19.04		.99	1.32
22	Diseases of the ear.....	9.15		.74	.60
23	Catarrhs and common colds.....	38.07			.55
24	Bronchitis.....	65.27			1.14
25	Pneumonia.....	3.71	.99		.33
26	Pulmonary phthisis.....	1.48	.25	.99	.48
27	Pleuritis.....	2.17			.06
28	Other diseases of the respiratory system.....	13.60		.49	.51
29	Diseases of the heart and valves.....	7.17	.49	2.22	.76
30	Other diseases of the circulatory system.....	1.88		.74	.21
31	Tonsillitis.....	26.21			.65
32	Dyspepsia, colic, and constipation.....	51.17			.53
33	Other diseases of the digestive system.....	68.73		.99	1.92
34	Diseases of the kidneys.....	1.24	.25	.49	.10
35	Other diseases of the genito-urinary system (non-venereal).....	17.80		1.48	1.47
36	Diseases of the locomotor system (excluding muscular rheumatism).....	4.70		1.73	.45
37	Diseases of the integumentary system.....	101.36		.25	3.02
38	All other diseases.....	24.47		.49	1.07
39	Heat-stroke.....	4.45			.10
40	Frost-bite and general freezing.....	8.16	.25		.37
41	Contusions and sprains.....	141.90			3.83
42	Dislocations.....	2.47			.27
43	Fractures (not gunshot).....	5.44		.74	.88
44	Incised, lacerated, contused, and punctured wounds.....	55.38			1.81
45	Shot wounds.....	4.70	.74	.25	.62
46	All other injuries.....	44.50	.99	1.48	1.23
Total for disease.....		1,076.63	3.46	23.24	36.08
Total for injury.....		267.00	1.98	2.47	9.11
Total for all causes.....		1,343.63	5.44	25.71	45.19

causes and ratios per 1,000 of mean strength, etc.—Continued.

Northern Group.				Fort Pembina, Dak.				Fort Totten, Dak.				Fort Sisseton, Dak.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
			.04													1
2.97			.04					16.13			.09					2
51.88			.81	47.62			.68	24.19			.18	10.20			.14	3
.74			.11													4
94.89			1.06	238.10			1.60	48.39			.71	51.02			.28	5
1.48			.03								.13					6
22.08		.74	1.42	35.71			.75	24.19			.22					7
9.64		2.22	1.10					16.13		24.19	4.13	20.41			1.85	8
5.19			.28													9
2.52			.06									20.41			.59	10
2.22			.05													11
44.48			.41	35.71			.10	16.13			.11					12
																13
84.51		.74	4.61	130.95			7.01	64.52			1.46	71.43			2.04	14
4.45			.31									10.20			.20	15
		.74														16
1.48			.01													17
70.42			.87	214.28			2.19	104.84			.62	71.43			.25	18
5.93		2.22	2.20	11.90	11.90		.59								9.78	19
17.05		1.48	2.22	53.52	23.81		5.35					10.20			.08	20
7.41		.74	.45	35.71			.29	8.06			.02					21
33.36			.35	273.81			1.86					61.22			1.45	22
80.06			1.43	47.62			.36	48.59			.53	10.20			.08	23
4.45	1.48		.49									20.41			2.43	24
1.48		2.22	.41													25
.74			.01													26
5.19			.49									10.20			.20	27
2.22	.74	.74	.29					8.06	8.06	8.06	1.70	10.20			.39	28
2.22		.74	.26	11.90			.65									29
43.74			.92	11.90			.10	16.13			.31	30.61			.28	30
53.37			.63	95.54			2.71	32.26			.24	91.84			1.59	31
57.08		.74	1.47	71.43			.85	24.19			.15	122.45			2.07	32
.74			.06									10.20	10.20		.81	33
																34
19.27	.74	2.97	1.85	35.71	11.90	2.71	24.19		8.06	2.43						35
																36
6.67		2.22	.47	11.90		2.01	8.06			.07						37
85.25			3.31	95.54		3.65	137.10			2.14	51.02				.45	38
27.43			.82	23.81		.13	48.39			1.70						39
3.71			.19													40
13.34	.74		.27	35.71		.95					40.82	10.20			.31	41
155.67			3.31	273.81		5.77	120.97			1.06	142.86				1.37	42
2.97			.28	11.90		.72										43
5.93		1.48	1.24	23.81		6.07										44
																45
65.97			2.06	107.14		1.86	56.45			1.77	40.82				.36	46
2.07			.51				8.06			.91	20.41				4.53	47
40.77	.74	1.48	1.43	47.62		.59	56.45			.80	30.61				1.09	48
																49
833.21	2.97	18.53	30.33	1,488.10	47.62	33.60	609.35	8.06	40.32	16.95	683.67	16.20			24.07	50
291.35	1.48	2.97	8.99	500.00		15.95	241.94			4.53	275.51	10.20			7.66	51
1,124.54	4.45	21.50	38.32	1,988.10	47.62	49.55	911.29	8.06	40.32	21.48	959.18	20.41			32.63	52

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Buford, Dak.				Fort A. Lincoln, Dak.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....								
3	Malarial fevers and resulting conditions.....	33.97			.92	8.85			1.26
4	Typho-malarial fever.....				.52	79.63			.75
5	Diarrhœa, including cholera morbus.....	61.15							
6	Dysentery.....								
7	Other miasmatic diseases.....								
8	Gonorrhœa and results.....	32.37			1.92	17.70			.58
9	Syphilis and results.....	17.93			1.82	8.85			.34
10	Other venereal diseases.....					8.85			.20
11	Vaccina.....								
12	Other enthetic diseases.....					8.85			.29
13	Alcoholism.....	43.17			.55	106.19			.68
14	Other dietetic diseases.....								
15	Rheumatism, including muscular.....	93.52		3.60	6.24	79.63			4.07
16	Other constitutional diseases.....	14.39			1.11				
17	Developmental diseases.....							8.85	
18	Parasitic diseases.....								
19	Headache and neuralgia.....	79.14			1.05	17.70			.05
20	Other diseases of the nervous system.....	3.60			.14				
21	Diseases of the eye.....	21.58			4.04	17.70			.10
22	Diseases of the ear.....	3.60		3.60	1.27				
23	Catarrhs and common colitis.....	10.79			.07	53.10			.61
24	Bronchitis.....	43.17			1.18	35.40			.10
25	Pneumonia.....	14.39	3.60		.81				.15
26	Pulmonary phthisis.....					8.85		8.85	4.39
27	Pleuritis.....								
28	Other diseases of the respiratory system.....	10.79			.15	8.85			.10
29	Diseases of the heart and valves.....								
30	Other diseases of the circulatory system.....					8.85		8.85	1.96
31	Tonsillitis.....	39.57			.60	53.10			.73
32	Dyspepsia, colic, and constipation.....	25.18			.18	53.10			.20
33	Other diseases of the digestive system.....	35.97			1.84	44.25			1.62
34	Diseases of the kidneys.....								
35	Other diseases of the genito-urinary system (non venereal).....	17.99		3.60	3.08	17.70		8.85	2.96
36	Diseases on the locomotor system (excluding muscular rheumatism).....								
37	Diseases of the integumentary system.....	68.34			2.21	106.19			6.93
38	All other diseases.....	7.19			.43	17.70			.34
39	Heat-stroke.....	3.60			.04				
40	Frost bite and general freezing.....	7.19			.47	17.70			.17
41	Contusions and sprains.....	151.08			3.94	132.74			2.30
42	Dislocations.....								.24
43	Fractures (not gunshot).....	7.19		7.19	2.95				
44	Incised, lacerated, contused, and punctured wounds.....	53.96			1.80	70.80			2.42
45	Shot wounds.....	3.60			.46				
46	All other injuries.....	28.78		7.19	2.38	26.56	8.85		.36
Total for disease.....		679.86	3.60	10.79	30.14	761.06		35.40	28.49
Total for injury.....		255.39		14.39	12.04	247.79	8.85		5.50
Total for all causes.....		935.25	3.60	25.18	42.18	1,008.85	8.85	35.40	33.99

causes and ratios per 1,000 of mean strength, etc.—Continued.

Fort Yates, Dak.				Fort Bennett, Dak.				Fort Sully, Dak.				Fort Randall, Dak.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
															.34
70.63			1.13	43.48			1.07	12.05			.61	23.67			2.03
115.24			1.37	43.48			.36	150.60			2.24	70.92			1.13
26.02			2.06				.77	18.07			.36	23.67		5.92	3.53
11.15			.40					12.05			.17	5.92			1.28
3.72			.07									17.75			1.44
3.72			.10									5.92			.08
59.48			.31	21.74			.06	12.05			.13	71.00			1.18
115.24			7.01	65.22			.71	12.05			3.70	100.59			3.08
											5.92				.52
								6.02			.03	5.92			.03
14.87			.31					78.31			1.65	91.67			1.41
7.43		7.43	3.40	21.74			3.57	12.05			3.84	5.92			1.17
11.15			.40					6.02			.07	29.59			7.57
3.72			.63					6.02			.07	17.75			.29
3.72			.02	86.96			.83					11.83			.24
141.26			1.80	86.96			5.72	168.67			3.07	65.08			1.25
	3.72		.66												
								6.02		6.02	.26		5.92		.05
								6.02			.12				
							6.43	6.02			1.72	5.92			.06
								6.02			.86				
								6.02			.41				
40.89			.92	86.96			1.61	36.14			.94	88.76			2.58
66.91			.57	65.22			.77	48.19			.21	53.25			.83
26.02		3.72	.67	65.22			2.20	132.53			2.84	53.25			1.44
11.15			.47	21.74			1.43	30.12			1.20	23.67			2.24
18.59		11.15	1.37	21.74			.06	6.02			.53				
85.50			5.31	43.48			2.74	114.46			2.52	59.17			2.79
11.15			.12					78.31			1.88	53.25			2.27
14.87			.92												
22.30			.28					6.02			.17				.03
148.70			3.64	108.70			4.05	162.65			2.19	165.68			4.85
11.15			1.06												
3.72			.59					6.02			.83	11.83			.30
59.48			1.95	65.22			1.25	60.24			1.96	100.59			4.03
26.02			.34					54.22			.68	82.84			2.19
847.58	3.72	22.30	29.04	673.92			28.35	981.93	6.02	29.61	899.41	11.83			38.84
286.25			8.77	173.91			5.30	289.15		5.82	360.95				11.43
1,133.83	3.72	22.30	37.81	847.83			33.65	1,271.08	6.02	35.43	1,260.36	11.83			50.27

Table showing, for each region and each military station therein, the

	Names of regions and military stations.	In the field, North- ern Group Prairies.			Middle Group.			
		Admitted.	Died.	Discharged, Constantly non- effective.	Admitted.	Died.	Discharged.	Constantly non- effective.
1	Enteric fever				6.34	.49		1.12
2	Other specific febrile and acute infectious diseases, including erysipelas				18.55		.49	.73
3	Malarial fevers and resulting conditions				203.51	.49		4.75
4	Typho-malarial fever				2.93	1.46		.47
5	Diarrhœa, including cholera morbus				194.24	.49		2.38
6	Dysentery				15.13			1.23
7	Other miasmatic diseases							
8	Gonorrhœa and results				27.94			1.52
9	Syphilis and results				38.56		4.88	4.87
10	Other venereal diseases				19.63			1.51
11	Vaccina				14.15			.34
12	Other enthetic diseases				1.46			.02
13	Alcoholism				38.56			.30
14	Other dietetic diseases							
15	Rheumatism, including muscular				88.34		2.93	4.44
16	Other constitutional diseases				2.44			.31
17	Developmental diseases .....						.98	
18	Parasitic diseases				1.95			.01
19	Headache and neuralgia				63.93			1.21
20	Other diseases of the nervous system				10.74		4.39	.66
21	Diseases of the eye				17.68			.80
22	Diseases of the ear				9.27		.98	.78
23	Catarrhs and common colds				35.14			.50
24	Bronchitis				68.81			1.12
25	Pneumonia				4.39	.98		.34
26	Pulmonary phthisis .....				.98	.49	.49	.43
27	Pleuritis				1.95			.07
28	Other diseases of the respiratory system				20.99		.98	.65
29	Diseases of the heart and valves				6.34		1.95	.79
30	Other diseases of the circulatory system				1.95			.21
31	Tonsillitis				20.99			.64
32	Dyspepsia, colic, and constipation				56.61			.58
33	Other diseases of the digestive system				74.67		1.46	1.99
34	Diseases of the kidneys				1.95		.98	.15
35	Other diseases of the genito-urinary system (non-venereal)				15.13		.98	1.19
36	Diseases of the locomotor system (excluding muscular rheumatism)				4.39		1.95	.30
37	Diseases of the integumentary system			4.11	86.87			2.39
38	All other diseases				26.35		.98	1.42
39	Heat-stroke				2.93			.02
40	Frost-bite and general freezing				7.32			.85
41	Contusions and sprains	500.00		2.74	122.99			3.94
42	Dislocations				2.93			.35
43	Fractures (not gunshot)				5.37		.49	.60
44	Incised, lacerated, contused, and punctured wounds				35.14			1.35
45	Shot wounds				5.37	.98	.49	.72
46	All other injuries				41.00	1.46	.98	1.65
	Total for disease			4.11	1,196.68	4.39	24.46	38.75
	Total for injury	500.00		2.74	223.04	2.44	1.95	8.58
	Total for all causes	500.00		6.85	1,419.72	6.83	26.35	48.33

causes and ratios per 1,000 of mean strength, etc.—Continued.

Rock Island Arsenal, Ill.				Fort Omaha, Neb.				Omaha, Neb., Headquarters.				Fort Leavenworth, Kans.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
							.21					10.00			1.71
172.41		2.69	214.11	2.43			1.05	32.26		.80		43.33			.80
310.34		1.79	257.91				4.99					96.67			2.87
							.11								
17.24		1.28	21.90				.23					115.00			1.19
							2.38					1.67			.01
							1.61								
							11.90					30.60			1.61
							2.88					43.33		3.33	4.04
												21.67			12.68
												23.33			.73
17.24		.04	99.76				.62	32.26		.88					
								32.26		1.24		21.67			.21
34.48		.88	116.79				9.52					50.00		1.67	3.13
17.24		3.12	4.87				.34					1.67			.52
							.01							3.33	
103.45		1.27	92.46				.71					1.67			.01
							1.77					36.67			.33
							1.65					10.00		1.67	.43
							3.03					13.33			.38
137.93		.66	104.62				1.65					8.33		3.33	.45
103.45		1.32	124.09				2.61					11.67			.13
							.35					65.00			.74
							.45					8.33	1.67		.59
34.48		.43	12.17				1.74					3.33			.03
							2.03					18.33		1.67	.51
17.24		.14	4.87									1.67			.02
							1.10	32.26		.88		3.33			.66
172.41		1.32	63.26				.69					6.67			.12
172.41		1.18	99.76			2.43	1.39	32.26		7.69		31.67			.23
												90.00		3.33	2.43
												3.33			.35
68.97		1.37	7.31				.36					20.00			1.65
51.72		2.53	4.87			4.87	.43					3.33		1.67	.15
51.72		.76	116.79				3.25					91.67			2.66
34.48		.33	17.01				.76					46.67			1.94
							2.56					5.00			.03
51.72		.76	155.72				5.81					3.33			
							.44					115.00			3.48
							.59					3.33			.36
												6.67			1.02
34.48		1.27	31.63				2.35	32.26		1.24		41.67			1.32
51.72		1.70	58.53				1.05					8.33	3.33		.59
												26.67		1.67	.73
1,517.24		20.60	1,598.51	4.87	36.59		59.61	193.55		19.00		933.33	1.67	20.00	32.71
137.93		3.73	260.34				12.81	32.26		1.24		210.00	3.33	1.67	7.54
1,655.17		24.33	1,858.88	4.87	36.50		72.42	225.81		20.24		1,143.33	5.00	21.67	40.25

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Sill, Ind. T.				In the field, Middle Group, Prairies.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....	7.09			1.18	8.40			.12
2	Other specific febrile and acute infectious diseases, including erysipelas.....								
3	Malarial fevers and resulting conditions.....	539.01	3.55		11.72	277.31			12.72
4	Typho-malarial fever.....	10.64	7.09		1.46				
5	Diarrhoea, including cholera morbus.....	134.75			3.21	436.97	8.40		3.84
6	Dysentery.....	10.64			.85	16.81			.09
7	Other miasmatic diseases.....	10.64			.59	8.40			.07
8	Gonorrhoea and results.....	10.64							
9	Syphilis and results.....	21.28		7.09	3.81				
10	Other venereal diseases.....	10.64			1.02				.16
11	Vaccina.....	7.09			.19				
12	Other enthetic diseases.....								
13	Alcoholism.....					25.21			.23
14	Other dietetic diseases.....								
15	Rheumatism, including muscular.....	163.12		3.55	6.44	126.05			1.36
16	Other constitutional diseases.....	3.55			.10				
17	Developmental diseases.....								
18	Parasitic diseases.....	7.09			.05				
19	Headache and neuralgia.....	63.83			3.88	67.23			.76
20	Other diseases of the nervous system.....	3.55			.37				
21	Diseases of the eye.....	3.55			.10	16.81			.51
22	Diseases of the ear.....					16.81			.16
23	Catarrhs and common colds.....	7.09			.08	8.40			.02
24	Bronchitis.....	46.10			1.30	8.40			.09
25	Pneumonia.....	3.55	3.55		.10				
26	Pulmonary phthisis.....	3.55		3.55	2.48				
27	Pleuritis.....	3.55			.06				
28	Other diseases of the respiratory system.....	85.11			.98				
29	Diseases of the heart and valves.....	24.82		7.09	1.89				
30	Other diseases of the circulatory system.....								
31	Tonsillitis.....	14.18			.58	8.40			.12
32	Dyspepsia, colic, and constipation.....	39.01			.52	67.23			.39
33	Other diseases of the digestive system.....	67.38			3.24	16.81			.28
34	Diseases of the kidneys.....			3.55					
35	Other diseases of the genito-urinary system (non-venereal).....	17.73		7.09	1.29				.51
36	Diseases of the locomotor system (excluding muscular rheumatism).....				.01				
37	Diseases of the integumentary system.....	85.11			2.80	142.86			3.27
38	All other diseases.....	35.46		3.55	3.69	8.40			.62
39	Heat-stroke.....					25.21			.18
40	Frost-bite and general freezing.....	3.55			.67				
41	Contusions and sprains.....	166.67			6.91	117.65			3.15
42	Dislocations.....	3.55			.11	8.40			.41
43	Fractures (not gunshot).....				.22	8.40			.46
44	Incised, lacerated, contused, and punctured wounds.....	31.91			.68	58.82			1.45
45	Shot wounds.....	17.73		3.55	2.92				
46	All other injuries.....	92.20			1.37	75.63			1.34
Total for disease.....		1,429.08	14.18	35.46	53.52	1,260.50	8.40		15.31
Total for injury.....		315.60		3.55	12.30	294.12			7.00
Total for all causes.....		1,744.68	14.18	39.01	65.82	1,554.62	8.40		22.31

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Southern Group.				Fort Concho, Tex.				San Antonio Post, Tex.				San Antonio, Tex., headquarters.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
4.61			.63					8.00			1.08					1
12.36			.60	11.63			.72	16.00			.70					2
259.66		1.55	4.99	151.16			3.31	312.00		2.67	6.49	66.67			.55	3
139.10			1.55	145.35			2.28	149.33			1.34					4
3.09			.06	5.81			.03					33.33			1.10	5
58.73	1.55		3.81	46.51			2.56	80.00		2.67	5.40					6
29.37	3.09		2.91	5.81	5.81		3.06	48.00		2.67	3.66					7
17.00			1.02	11.63			1.32	24.00			1.16					8
6.18			.09	17.44			.29	2.67			.02					9
46.37			.42	34.58			.27	64.00			.61					10
69.53			3.89	133.72			5.02	50.67			3.94	33.33			4.29	11
7.73	4.64		.62					13.33		8.00	1.07					12
6.18	1.55		.06	11.63			.14	5.33			.04					13
38.64			.63	29.07			1.16	42.67			.47	33.33			.37	14
15.46	3.09		1.13	5.81			.75	16.00		5.33	.96	66.67			7.12	15
29.37	3.09		1.11	40.70	5.81		1.32	26.67		2.67	1.09	66.67			2.65	16
12.36			.34	11.63			.06	13.33			.49	33.33			.91	17
57.19			.99	29.07			.24	85.33			1.59					18
23.18			.59	63.95			1.69	10.67			.25					19
3.09			.80					2.67			.60	33.33			9.77	20
7.73			.12	29.07			.45									21
7.73			.08	11.63			.08	8.00			.11					22
20.09	1.55	6.18	1.04	34.88	5.81		4.17	18.67	2.67	8.00	.91					23
1.55		3.09	.09					2.67		5.33	.16					24
6.18			.14					8.00			.22	33.33			.27	25
29.37			.15	58.14			.25	16.00			.09	33.33			.37	26
74.18			2.65	104.65			2.29	74.67			2.46	33.33			11.32	27
			1.57													28
23.18				40.70			1.69	8.00			.10	166.67			23.01	29
1.55			.86	5.81			1.32				.98					30
180.84	1.55		4.42	180.23			5.69	189.33		2.67	4.29	100.00			3.20	31
12.36			.50	23.26			1.23	5.33			.25	33.33			.27	32
10.82			.14				.10	2.67			.13					33
173.11			4.57	325.58			5.97	136.00			4.87					34
4.64			1.01	5.81			.94	5.33			1.31					35
97.37			2.78	232.56			6.72	58.67			1.54					36
6.18	1.55		.50	5.81			.50	8.00	2.67		.70					37
63.37	3.09		1.09	93.02			1.64	58.67		5.33	2.49					38
1,204.02	1.55	29.37	38.49	1,244.19	17.44		41.40	1,301.34	2.67	42.67	40.54	766.67			65.21	39
355.49	1.55	3.09	11.05	662.79			15.93	269.33	2.67	5.33	11.05					40
1,559.51	3.09	32.46	49.54	1,906.98	17.44		57.33	1,570.67	5.33	48.00	51.59	766.67			65.21	41

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Camp Poplar River, Mont.				Fort Shaw, Mont.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever								
2	Other specific febrile and acute infectious diseases, including erysipelas					14.93			.60
3	Malarial fevers and resulting conditions	10.31			.08				
4	Typho-malarial fever								
5	Diarrhoea, including cholera morbus	175.26			.51	79.60			.37
6	Dysentery								
7	Other miasmatic diseases								
8	Gonorrhoea and results	113.40			6.24	4.98			.33
9	Syphilis and results								
10	Other venereal diseases	20.62			1.33				
11	Vaccina					4.98			.18
12	Other enthetic diseases					4.98			.16
13	Alcoholism	10.31			.08	39.80			.33
14	Other dietic diseases					4.98			.18
15	Rheumatism, including muscular	113.40			2.57	74.63			3.35
16	Other constitutional diseases					4.98	4.98		.46
17	Developmental diseases								
18	Parasitic diseases								
19	Headache and neuralgia	82.47			.93	39.80			.61
20	Other diseases of the nervous system	10.31			.63	14.93			.71
21	Diseases of the eye	10.31			.68	9.95			.33
22	Diseases of the ear	30.93			.42				
23	Catarrhs and common colds	41.24			.34	9.95			.10
24	Bronchitis	123.71			2.68	24.88			1.08
25	Pneumonia								
26	Pulmonary phthisis								
27	Pleuritis	30.93			.51				
28	Other diseases of the respiratory system	10.31			.20	9.95		4.98	.63
29	Diseases of the heart and valves	61.86		10.31	2.26	19.90			.42
30	Other diseases of the circulatory system								
31	Tonsillitis	72.16			.85	24.88			.30
32	Dyspepsia, colic, and constipation	51.55			.17	74.63			.59
33	Other diseases of the digestive system	144.33			2.43	69.65			1.28
34	Diseases of the kidneys								
35	Other diseases of the genito-urinary system (non-venereal)	103.09		10.31	3.28				
36	Diseases of the locomotor system (excluding muscular rheumatism)					4.98			3.61
37	Diseases of the integumentary system	185.57			5.42	14.93			.20
38	All other diseases	20.62			.90	4.98			.42
39	Heat-stroke								
40	Frost-bite and general freezing	30.93			1.10	19.90			.34
41	Contusions and sprains	195.88			4.72	139.30		4.98	11.22
42	Dislocations								
43	Fractures (not gunshot)	20.62			2.03				
44	Incised, lacerated, contused, and punctured wounds	113.40			4.07	34.83			1.62
45	Shot wounds	10.31			.59	4.98	4.98		.10
46	All other injuries	92.78		10.31	1.38	19.90			.38
Total for disease		1,422.68		20.62	31.91	557.20	4.98	4.98	16.26
Total for injury		463.92		10.31	13.90	218.91	4.98	4.98	13.66
Total for all causes		1,886.60		30.93	45.81	776.11	9.95	9.95	29.92

causes and ratios per 1,000 of mean strength, etc.—Continued.

Fort Maginnis, Mont.				Fort Keogh, Mont.				Fort Custer, Mont.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
18.02	9.01		3.28	8.24			.42	2.75			.12
36.04			.72	5.49			.29	35.81			2.68
45.05			.32	60.44			.35	55.10		5.51	1.18
				2.75			.18				
				16.48			.14	35.81		5.51	2.48
9.01			.10	10.99			.32	27.55			4.35
18.02			.74	5.49			.08	68.87			5.64
				2.75			.11				
				5.49			.14	2.75			.06
9.01			.12	79.67			.50	13.77			.20
63.00			1.41	123.63		2.75	1.00	110.19		19.28	4.37
				2.75			.47				
				2.75		2.75	.33			2.75	
				2.75			.03				
63.00			.30	85.16		2.75	.99	19.28			.14
				13.74		2.75	.58	11.02		2.75	1.20
18.02			.20	27.47		2.75	.20	13.77			.13
27.03			.23	16.48		2.75	.69	11.02		2.75	.17
9.01			.37	2.75			.05	66.11			2.44
108.11			2.22	87.91		5.49	3.86	8.26			2.45
				2.75	2.75		.21	2.75	2.75		.13
				2.75			.05	5.51			.14
				10.99			1.24	5.51			.36
				54.01			.84				.20
27.03			.37	38.16			.26	68.11			.97
18.02			.10	49.45		2.75	1.38	35.81			1.15
				2.75			.05				
45.05			1.23	10.99		2.75	.46	8.26		2.75	.43
		9.01		2.75			.18	2.75			
90.09			.86	96.15			1.67	99.17			3.53
36.04			.42	2.75			.04	19.28			2.00
27.03			2.47	2.75			2.91	2.75			.20
198.20		9.01	7.73	241.76			5.16	110.19			3.01
27.03			4.29	10.99			.75	5.51			1.15
							.75	13.77		2.75	3.87
63.06			1.58	61.19			1.70	41.32			2.26
9.01	9.01		.89	5.49			.33	5.51			.34
45.05		9.01	.99	21.98			.41	24.79			.37
639.64	0.01	9.01	12.98	837.91	2.75	27.47	17.70	727.27	2.75	44.08	36.61
369.37	0.01	18.02	17.95	346.16			12.02	203.86		2.75	11.20
1,009.01	18.02	27.03	30.93	1,184.07	2.75	27.47	29.72	931.13	2.75	46.83	47.81

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Meade, Dak.				Fort McKinney, Wyo.			
Causes of admissions to sick reports.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever								
2	Other specific febrile and acute infectious diseases, including erysipelas	6.49			.12				
3	Malarial fevers and resulting conditions	54.11			.95	29.24			1.23
4	Typho-malarial fever								
5	Diarrhœa, including cholera morbus	155.84			1.57	140.35			.91
6	Dysentery					17.54			.14
7	Other miasmatic diseases								
8	Gonorrhœa and results	34.63			1.55	29.24			.31
9	Syphilis and results	12.99		4.33	.57				
10	Other venereal diseases	6.49			.23	51.63			2.60
11	Vaccina								
12	Other enthetic diseases								
13	Alcoholism	54.11			.81	29.24			.18
14	Other dietetic diseases								
15	Rheumatism, including muscular	203.46		6.49	7.97	81.87		5.85	4.58
16	Other constitutional diseases	4.33			.14			5.85	
17	Developmental diseases								
18	Parasitic diseases								
19	Headache and neuralgia	101.73			1.58	216.37			2.28
20	Other diseases of the nervous system	8.66			1.04	5.85			.64
21	Diseases of the eye	38.96		2.16	1.13	23.39			2.05
22	Diseases of the ear	8.66			.14	5.85			.19
23	Catarrhs and common colds	180.15			2.11	29.24			.59
24	Bronchitis	180.15	2.16	2.16	2.61	140.35		5.85	6.22
25	Pneumonia	4.33			.42	5.85	5.85		.14
26	Pulmonary phthisis	19.48		15.15	3.24	5.85			.70
27	Pleuritis					11.70			.45
28	Other diseases of the respiratory system .....				.07	11.70			.11
29	Diseases of the heart and valves	17.32			.44				
30	Other diseases of the circulatory system								
31	Tonsillitis	67.10			.98	99.42			1.71
32	Dyspepsia, colic, and constipation	108.22			1.39	79.18			.48
33	Other diseases of the digestive system	114.72		6.49	2.29	99.42			1.87
34	Diseases of the kidneys	2.16			.31				
35	Other diseases of the genito-urinary system (non-venereal)	8.66		2.16	1.13	11.70		5.85	1.71
36	Diseases of the locomotor system (excluding muscular rheumatism)	6.49		2.16	1.04	11.70		5.85	1.35
37	Diseases of the integumentary system	86.58			2.59	140.35			5.00
38	All other diseases	6.49			.29	58.48			1.52
39	Heat-stroke								
40	Frost-bite and general freezing	21.65			.40	5.85			.03
41	Contusions and sprains	281.39		2.16	16.01	257.31		5.85	7.05
42	Dislocations	4.33			.11				
43	Fractures (not gunshot)	2.16			.07	17.54			5.27
44	Inciised, lacerated, contused, and punctured wounds	49.78			1.99	23.39			1.52
45	Shot wounds	17.32		6.49	2.13	5.85	5.85		.02
46	All other injuries	54.11			1.88	35.09			.38
Total for disease		1,504.33	2.16	41.13	36.77	1,327.48	5.85	29.24	37.12
Total for injury		430.73		8.66	16.59	345.03	5.85	5.85	14.28
Total for all causes		1,935.06	2.16	49.78	53.36	1,672.51	11.70	35.09	51.40

causes and ratios per 1,000 of mean strength, etc.—Continued.

In the field, Northern Group, Great Plains.				Middle Group.				For Niobrara, Nebr.				Fort Robinson, Nebr.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
				21.06	1.85		2.20					21.54	6.15		1.82
				21.06			.37	32.71			.36	83.08			1.28
31.25		.11		66.86			2.25	25.70			.31	30.77			.97
				.37			.06								
31.25		.40		114.89	.37	.37	1.29	86.45			.94	107.69			.87
31.25		.86		11.08			.71					3.08			.78
				19.95			.89	14.02			.63	33.85			2.61
31.25		1.86		11.45		1.85	.87	4.67			.13	21.51	12.31		2.93
10.42		.23		9.24			.54	4.67			.35	21.54			1.09
				8.49			.13	2.34			.02				
20.83		.37		2.59			.25				.54				
				38.05	.37		.32	16.36			.11	12.31			.14
				.37			.01								
83.33		.86		80.53		2.96	3.56	84.11		7.01	3.18	80.00		6.15	3.78
				5.17	.37	1.48	.42	18.09		7.01	1.77				
				.37		.37	.02	2.34		2.34	.14				
				2.96		.09									
10.42		.03		66.49		.37	1.13	35.05			.28	76.92		3.08	1.58
				11.45		3.69	.76	4.67		2.34	.04	27.69		12.31	1.80
				23.27		1.11	1.49	9.35		2.34	.06	27.69			3.06
				3.69			.07	2.34			.04	6.15			.19
20.83		.40		19.58			.19	28.04			.40	3.08			.02
				86.07		1.11	1.35	28.04		7.01	1.29	76.92			1.33
				2.59	1.11		.21				.40	6.15	3.08		.11
				2.59		1.48	1.38	2.34			.40				.35
				2.96			.09	2.31			.03	9.23			.51
20.83		.26		4.80		.74	.13	9.35		2.34	.22				
10.42		.06		4.06	.37	1.85	.32	14.02		4.67	.68				
				2.59			.30	9.35			.88	6.15			.62
52.08		.40		40.27			.51	25.70			.22	30.77			.35
20.83		.09		45.44			.47	23.36			.56	27.69			.29
10.42		.97		56.15	.74	1.48	1.60	9.35		4.67	.83	83.08			.99
				1.48		.37	.54					3.08			.06
				11.08		1.11	.77	11.68		2.34	1.16	3.08			.08
10.42		.06		4.80		1.85	.41	9.35		4.67	.28	3.08			.03
31.25		.83		70.19		.37	1.67	60.75			1.31	46.15		3.08	1.02
				12.93			.71	4.67			.08	18.46			.77
				7.76		.37	.40	16.36			.64	24.62			.44
52.08		1.03		134.84		.74	3.97	112.15			3.07	264.62		3.08	10.08
10.42		.11		2.96		.37	.33								
10.42		.71		6.28		.74	.84	2.34		2.34	1.39	6.15		3.08	.72
41.67		.88		54.30			1.40	72.43			1.73	52.31			1.85
	10.42	.06		9.60	1.11	.37	1.72	11.68			1.59	15.38	3.08		2.26
41.67		.66		36.57	.74	.37	1.05	28.04			.77	49.23			1.69
47.08		7.76		886.96	5.17	22.53	28.09	581.78		46.73	17.30	870.77	9.23	36.92	30.03
156.25	10.42	3.46		252.31	1.85	2.96	9.70	242.99		2.34	9.26	412.31	3.08	6.15	17.04
583.33	10.42	11.22		1,139.27	7.02	25.49	37.79	824.77		49.07	26.50	1,283.08	12.31	43.07	47.07

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Laramie, Wyo.				Fort D. A. Russell, Wyo.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	160.43	.....	.....	11.84	9.57	2.39	.....	1.66
2	Other specific febrile and acute infections diseases, including erysipelas	5.35	.....	.....	.07	11.96	.....	.....	.41
3	Malarial fevers and resulting conditions	16.04	.....	.....	1.17	78.95	.....	.....	3.20
4	Typho-malarial fever .....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diarrhœa, including cholera morbus	37.43	.....	.....	.28	110.05	.....	.....	.96
6	Dysentery .....	.....	.....	.....	.....	.....	.....	.....	.....
7	Other miasmatic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
8	Gonorrhœa and results .....	.....	.....	.....	.19	14.35	.....	.....	.31
9	Syphilis and results .....	.....	.....	.....	.....	21.53	.....	.....	.85
10	Other venereal diseases .....	.....	.....	.....	.....	9.57	.....	.....	.33
11	Vaccina .....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other enthetic diseases .....	.....	.....	.....	.....	4.78	.....	.....	.60
13	Alcoholism	90.26	5.35	.....	.86	38.23	.....	.....	.41
14	Other dietic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
15	Rheumatism, including muscular	53.48	.....	.....	.89	110.05	.....	2.39	8.27
16	Other constitutional diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
17	Developmental diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
18	Parasitic diseases .....	.....	.....	.....	.....	4.78	.....	.....	.04
19	Headache and neuralgia	21.39	.....	.....	.19	71.77	.....	.....	.98
20	Other diseases of the nervous system	5.35	.....	.....	.50	4.78	.....	.....	.64
21	Diseases of the eye	16.04	.....	.....	.18	28.71	.....	.....	2.24
22	Diseases of the ear	10.70	.....	.....	.09	4.78	.....	.....	.18
23	Catarrhs and common colds .....	.....	.....	.....	.....	23.62	.....	.....	.25
24	Bronchitis	74.87	.....	.....	.65	49.67	.....	.....	.82
25	Pneumonia	5.35	.....	.....	.15	2.39	2.39	.....	.05
26	Pulmonary phthisis .....	.....	.....	.....	.....	4.78	.....	4.78	4.30
27	Pleuritis .....	.....	.....	.....	.....	.....	.....	.....	.....
28	Other diseases of the respiratory system	5.35	.....	5.35	.53	2.39	.....	.....	.12
29	Diseases of the heart and valves	5.35	.....	.....	.31	4.78	2.39	2.39	.43
30	Other diseases of the circulatory system .....	.....	.....	.....	.....	.....	.....	.....	.....
31	Tonsillitis	21.39	.....	.....	.40	88.52	.....	.....	1.26
32	Dyspepsia, colic, and constipation	26.74	.....	.....	.18	21.53	.....	.....	.13
33	Other diseases of the digestive system	96.26	.....	5.35	3.91	43.06	2.39	.....	1.44
34	Diseases of the kidneys .....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of the genito-urinary system (non-venereal) .....	.....	.....	.....	.....	4.78	.....	2.39	.29
36	Diseases of the locomotor system (excluding muscular rheumatism)	5.35	.....	5.35	.67	4.78	.....	2.39	1.32
37	Diseases of the integumentary system	42.78	.....	.....	1.47	28.71	.....	.....	.66
38	All other diseases	21.39	.....	.....	.29	2.39	.....	.....	.01
39	Heat-stroke .....	.....	.....	.....	.....	.....	.....	.....	.....
40	Frost-bite and general freezing	10.70	.....	5.35	3.15	4.78	.....	.....	.14
41	Contusions and sprains	74.87	.....	.....	2.14	78.95	.....	2.39	1.75
42	Dislocations	5.35	.....	.....	.78	4.78	.....	2.39	.68
43	Fractures (not gunshot)	5.35	.....	.....	.19	2.39	.....	.....	.17
44	Incised, lacerated, contused, and punctured wounds	32.09	.....	.....	.88	43.06	.....	.....	1.57
45	Shot wounds .....	.....	5.35	.....	.....	11.96	.....	.....	4.63
46	All other injuries	26.74	.....	5.35	.68	14.35	.....	.....	.23
Total for disease		727.27	5.35	16.04	24.79	705.65	9.57	14.35	32.05
Total for injury		155.08	5.35	10.70	7.81	160.29	.....	4.78	9.16
Total for all causes		882.35	10.70	26.74	32.60	865.94	9.57	19.14	41.21

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Sidney, Nebr.				Fort Hays, Kans.				Fort Lyon, Colo.				Fort Supply, Ind. T.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
20.62			80	40.82	6.80		5.57	27.52	4.59		5.01					1
15.46			24					9.17			.26					2
61.86			1.03	34.01			.95	68.81			2.24	67.92			4.98	3
412.37			6.04	34.01		6.80	1.55	119.27			.67	109.43			1.05	4
10.31			32					4.59			.70	41.51			1.64	5
15.46			1.07	6.80			.80	18.35			.16	22.64			.92	6
5.15			10	20.41			1.57	13.76			.64	7.55	3.77		.56	7
25.77			3.11					9.17			.20	3.77			.10	8
51.55			.93				.89	50.46			.64					9
5.15			.06	6.80			.13				11.32				.20	10
211.34			1.77	6.80				45.87			.20	3.77			.02	11
61.86			1.12	81.63		6.80	7.38	82.57			2.85	52.83			1.01	12
				6.80		6.80	.37				3.77				.08	13
				6.80			.26									14
134.02			1.41	27.21			.21	87.16			.79	90.57			1.26	15
20.62			.66	6.80		6.80	.11	13.76			1.13	22.64	3.77		.92	16
15.46			.24	27.21			5.44	36.70			.29	33.96			1.59	17
								9.17			.04	3.77			.05	18
10.31			.06	6.80			.04	59.63			.54	7.55			.07	19
293.81			2.05	156.46			1.71	41.28			.53	26.42			1.12	20
5.15			1.29	6.80	6.80		.15	4.59			.93					21
				20.41		13.61	.45								1.55	22
				6.80			.09					11.32			.20	23
5.15			.09					4.59			.01					24
								4.59	4.59		.43					25
				54.42			.45	87.16			1.16	15.09			.87	26
118.56			.99	34.01			.13	73.39			.40	56.60			.87	27
36.08			1.41	95.24		6.80	2.96	128.44			1.65	22.64			2.98	28
5.15	5.15	4.89						4.59			.88					29
15.46			.95	6.80			2.70	18.35			.43	18.87			.31	30
								4.59			.03	7.55			.32	31
61.86			.69	47.82			2.05	123.85			3.62	94.34			2.08	32
15.46			5.08	6.80			.02	13.76			.57	18.87			.31	33
																34
								4.59			.01					35
144.33			3.22	27.21			4.66	169.72			3.19	116.98			3.06	36
5.15			.96					4.59			.54	3.77			.45	37
								9.17			.29	18.87			1.66	38
51.55			1.06	13.61			.17	22.94			.70	86.79			2.00	39
5.15			.07	13.61			1.92	13.76			.93	3.77			1.03	40
30.93			.45	27.21	6.80		.39	41.28			.74	60.38	3.77		2.35	41
1,634.02	5.15	39.23	748.30	13.61	47.62	35.95	1,165.14	4.59	4.59	27.07	758.40	7.55	25.91			42
237.11			5.76	81.63	6.80		7.14	266.05			6.43	290.57	3.77		10.55	43
1,871.13	5.15	44.99	829.93	20.41	47.62	43.09	1,431.19	4.59	4.59	33.50	1,049.06	3.77	7.55	36.46		44

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Reno, Ind. T.				Fort Elliott, Tex.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever								
2	Other specific febrile and acute infectious diseases, including erysipelas.	6.64			36	15.71			.19
3	Malarial fevers and resulting conditions.	222.59			5.90	31.41			.70
4	Typho-malarial fever	3.32			.46				
5	Diarrhoea, including cholera morbus.	86.38			1.01	73.30			.82
6	Dysentery	39.87			3.01	10.47			.33
7	Other miasmatic diseases.								
8	Gonorrhoea and results	26.58			.34	47.12			2.21
9	Syphilis and results	6.64			.58	10.47			1.49
10	Other venereal diseases.	9.97			.32	5.24			.27
11	Vaccina					5.24			.07
12	Other enthetic diseases.								
13	Alcoholism					26.18			.23
14	Other dietic diseases	3.32			.12				
15	Rheumatism, including muscular	112.96		3.32	3.54	52.36			.86
16	Other constitutional diseases	6.64			.28	10.47	5.24		1.15
17	Developmental diseases								
18	Parasitic diseases	6.64			.19	15.71			.63
19	Headache and neuralgia	93.02			1.10	15.71			4.10
20	Other diseases of the nervous system	6.64		6.64	.85	5.24		5.24	1.12
21	Diseases of the eye	29.90		6.64	1.64	10.47			.16
22	Diseases of the ear								
23	Catarrhs and common colds	29.90			.15				
24	Bronchitis	192.69			2.96	57.59			.47
25	Pneumonia								
26	Pulmonary phthisis	3.32			3.81				
27	Pleuritis								
28	Other diseases of the respiratory system	6.64			.25				
29	Diseases of the heart and valves	3.32		3.32	.65				
30	Other diseases of the circulatory system								
31	Tonsillitis	36.54			.52	26.18			.23
32	Dyspepsia, colic, and constipation.	73.09			.92	47.12			.26
33	Other diseases of the digestive system	69.77			1.02	47.12	5.24		.75
34	Diseases of the kidneys	3.32			1.03				
35	Other diseases of the genito-urinary system (non-venereal)	9.27			1.78	31.41		5.24	1.10
36	Diseases of the locomotor system (excluding muscular rheumatism)	6.64		3.32	.68				
37	Diseases of the integumentary system	136.21			2.38	89.01			2.29
38	All other diseases	19.93			1.01	20.94			.47
39	Heat-stroke								
40	Frost-bite and general freezing	3.32			.05				
41	Contusions and sprains	209.59			5.03	89.01			3.03
42	Dislocations	6.64			.68	5.24			.11
43	Fractures (not gunshot)	3.32			.89	15.71			1.88
44	Incised, lacerated, contused, and punctured wounds	69.77			1.73	68.00			.98
45	Shot wounds	3.32			.60	15.71	5.24		1.03
46	All other injuries	59.80			.93	30.63			2.80
Total for disease		1,252.49	23.26	36.99	654.45	10.47	10.47	19.91	
Total for injury		355.48		9.82	230.37	5.24		9.82	
Total for all causes		1,607.97	23.26	46.81	884.82	15.71	10.47	29.73	

causes, and ratios per 1,000 of mean strength, etc.—Continued.

In the field, Middle Group, Great Plains.				Southern Group.				Fort Stanton, N. Mex.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
.....	5.18	.....	.....	.75	4.90	.....	.....	.75
.....	8.05	.....	.....	.29	.....	.....	.....	.....
30.3058	89.71	1.15	.....	3.84	4.90	.....	.....	.04
.....58	.....	.....	.....	.01	.....	.....	.....	.....
181.82	30.30	.....	1.74	114.43	.....	1.15	2.15	14.71	.....	.....	.60
30.30	1.49	20.13	.....	.....	.61	.....	.....	.....	.....
.....58	.....	.....	.02	.....	.....	.....	.....
.....	42.55	.....	.....	2.39	41.12	.....	.....	.97
.....	36.80	.....	2.88	2.86	68.63	.....	9.80	8.02
.....	20.90	.....	.58	1.24	4.90	.....	.....	.21
.....	9.20	.....	.....	.16	.....	.....	.....	.....
.....	4.03	.....	.....	.10	.....	.....	.....	.....
.....	68.43	.58	.58	.70	14.71	4.90	.....	.23
.....	4.03	.....	.....	.04	4.90	.....	.....	.11
.....	80.51	.....	1.15	2.77	14.71	.....	.....	2.24
.....	5.18	.....	.....	.81	.....	.....	.....	3.95
.....58	.....	.58	.10	.....	.....	.....	.....
.....	9.78	.....	.....	.17	4.90	.....	.....	.04
60.61	1.33	35.08	.....	.....	.69	4.90	.....	.....	.03
.....	9.20	1.15	2.88	1.03	.....	4.90	4.90	.90
.....	29.90	.....	1.15	.57	9.80	.....	.....	.56
.....	8.05	.....	1.15	.20	.....	.....	.....	.....
90.9181	10.93	.....	.....	.09	.....	.....	.....	.....
.....	30.48	.....	.58	.67	19.61	.....	.....	1.87
.....	1.73	.....	.....	.11	.....	.....	.....	.32
.....	2.68	1.15	1.73	.55	.....	.....	.....	.....
.....	2.88	.....	.58	.21	.....	.....	.....	.....
90.9150	3.45	.....	.....	.14	.....	.....	.....	.....
.....	4.60	1.15	1.73	.34	.....	.....	4.90	.....
.....	1.15	.....	.58	.25	.....	.....	.....	.....
.....	12.08	.....	.....	.21	14.81	.....	.....	.58
.....	78.21	.....	.....	.74	39.22	.....	.....	.82
.....	64.40	1.73	.58	.36	34.31	.....	.....	8.54
.....	6.33	.....	.....	.36	.....	.....	.....	.....
.....	13.80	.....	.58	.92	.....	.....	.....	.09
.....	8.63	.....	1.73	.02	.....	.....	.....	.....
.....	90.86	.....	.....	2.34	44.12	.....	.....	.87
.....	37.38	.....	.....	.90	19.61	.....	.....	.78
.....	4.60	.....	.....	.04	4.90	.....	.....	.04
.....	2.30	.....	.....	.03	9.80	.....	.....	.17
121.21	3.24	127.08	.....	.....	2.83	107.84	.....	.....	3.13
.....	4.03	.....	.....	.26	.....	.....	.....	.....
.....42	12.65	.....	.....	1.60	.....	.....	.....	.....
.....
30.3050	49.45	.58	.....	1.69	49.02	.....	.....	2.52
.....	30.30	.....	5.15	5.18	1.73	.....	.60	4.90	.....	.....	3.95
.....	35.65	2.30	1.15	.81	9.80	.....	.....	.15
.....
484.84	30.30	.....	7.06	981.02	6.90	20.13	32.32	367.65	9.80	19.61	29.53
151.52	30.30	9.30	240.94	4.60	1.15	8.08	186.27	.....	.....	9.97
636.36	30.30	30.30	16.36	1,221.97	11.50	21.28	40.40	553.92	9.80	19.61	39.50

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Bliss, Tex.				Fort Hancock, Tex.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	43.48			7.41				
2	Other specific febrile and acute infectious diseases, including erysipelas	8.70			4.43	47.62			1.74
3	Malarial fevers and resulting conditions	173.91			6.48	79.37			2.00
4	Typho-malarial fever								
5	Diarrhœa, including cholera morbus	191.30			4.38	126.98			.23
6	Dysentery	34.78			.91	15.87			.26
7	Other miasmatic diseases								
8	Gonorrhœa and results					31.75			2.01
9	Syphilis and results	78.26			3.53	47.62			3.39
10	Other venereal diseases	34.78			1.29				1.00
11	Vaccina	8.70			.07				
12	Other enthetic diseases								
13	Alcoholism	26.09			.10	31.75			.26
14	Other dietic diseases								
15	Rheumatism, including muscular	69.57			1.83	63.49			.39
16	Other constitutional diseases								
17	Developmental diseases								
18	Parasitic diseases					31.75			.13
19	Headache and neuralgia	69.57			.55	111.11			1.35
20	Other diseases of the nervous system	8.70			.05	15.87			1.22
21	Diseases of the eye				.36	15.87			.09
22	Diseases of the ear	34.78			1.16			15.87	
23	Catarrhs and common colds								
24	Bronchitis	52.17		8.70	2.17				.26
25	Pneumonia								
26	Pulmonary phthisis	8.70		8.70	3.41		15.87		
27	Pleuritis								
28	Other diseases of the respiratory system	17.39			.12				1.78
29	Diseases of the heart and valves								
30	Other diseases of the circulatory system								
31	Tonsillitis	17.39			.17	15.87			.09
32	Dyspepsia, colic, and constipation	17.39			.12	126.98			1.13
33	Other diseases of the digestive system	139.13	8.70		3.50	63.49			2.65
34	Diseases of the kidneys	17.39			1.74				
35	Other diseases of the genito-urinary system (non-venereal)								
36	Diseases of the locomotor system (excluding muscular rheumatism)								
37	Diseases of the integumentary system	86.96			1.26	111.11			2.96
38	All other diseases	43.48			2.69				
39	Heat-stroke	8.70			.07				
40	Frost-bite and general freezing	8.70			.07				
41	Contusions and sprains	191.30			1.88	222.22			6.26
42	Dislocations								
43	Fractures (not gunshot)								1.52
44	Incised, lacerated, contused, and punctured wounds	34.78			.83	31.75			1.35
45	Shot wounds	8.70			.14				
46	All other injuries	8.70	8.70		.07	31.75	15.87		.35
Total for disease		1,182.61	8.70	17.39	13.74	936.51	15.87	15.87	23.57
Total for injury		260.87	8.70		3.07	283.71	15.87		9.44
Total for all causes		1,443.48	17.39	17.39	16.81	1,222.22	31.75	15.87	33.01

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Davis, Tex.				Camp Pena Colorao, Tex.				Camp Del Rio, Tex.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
10.75			1.07								
3.58			.10	16.95			.65	50.85			.98
43.01			3.23	67.80			5.29	84.75			3.90
			.03								
139.78		3.58	4.85	186.44			1.95	101.69			.88
32.26			1.47				.14				
39.43			1.59	16.95			3.30	16.95			2.32
35.84			1.75	50.85		33.90	2.00				
64.52		3.58	1.75				.19	16.95			.37
17.92			.33	16.95			1.02	16.95			.05
				16.95			.05	152.54			1.44
28.67			.31								
				67.80			.51	135.59			3.57
35.84			1.22	16.95			.23				
7.17			.33								
25.09			.21	50.85			.46	50.85			.84
25.09		3.58	3.25								
75.27			.13	33.90			4.18				
								16.95			.19
3.58			.03	50.85			.23	33.90			.28
32.26			.30	33.90			.70	33.90			.37
3.58		3.58	.88								
7.17			.09					16.95			.09
3.58			.29								
3.58	3.58		.07	16.95			.79				.09
			.88					16.95			2.09
10.75			.09	16.95			.37	50.85			.37
68.10			.39	16.95			.14	101.69			.46
75.27	3.58		1.28	67.80			6.64	33.90			.33
3.58			.07	16.95			.23				
14.34			.35					16.95			.33
				16.95			3.11				
75.27			1.51	16.95			.23	84.75			1.08
3.58			.03	16.95			1.90				
3.58			.02								
80.02			1.50	237.29			5.06	186.44			6.45
				50.85			4.41				
17.92			3.26	16.95			4.59	67.80			8.73
46.50			.84	33.90			.37	152.54			4.46
7.17			.05					16.95	16.95		.09
32.26	3.58		.63	16.95			.28	33.90			2.46
88.89	7.17	14.34	28.00	813.56		33.90	34.86	1,033.90		16.95	19.92
193.55	3.58		6.30	355.93			14.72	457.63	16.95		22.20
1,082.44	10.75	14.34	34.30	1,189.49		33.90	49.08	1,481.53	16.95	16.95	42.12

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Clark, Tex.				Fort McIntosh, Tex.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....	3.33			.16	13.25			.54
3	Malarial fevers and resulting conditions.....	66.67			2.67	218.54	13.25		7.26
4	Typho-malarial fever.....								
5	Diarrhoea, including cholera morbus.....	120.00			1.80	192.05			1.89
6	Dysentery.....	31.67			.79	13.25			.24
7	Other miasmatic diseases.....								
8	Gonorrhoea and results.....	38.33			1.17	92.72			7.07
9	Syphilis and results.....	25.00		1.67	2.68	50.00			2.94
10	Other venereal diseases.....	26.67			.99	33.11			2.16
11	Vaccina.....	13.33			.23	13.24			.24
12	Other enthetic diseases.....	6.67			.13				
13	Alcoholism.....	118.34		1.67	1.36	13.24			.09
14	Other dietetic diseases.....	10.00			.07				
15	Rheumatism, including muscular.....	121.67			2.06	132.45			7.67
16	Other constitutional diseases.....	11.67			.98				
17	Developmental diseases.....	1.67		1.67	.28				
18	Parasitic diseases.....	11.67			.20	26.40			.38
19	Headache and neuralgia.....	28.33			.33	72.85			1.81
20	Other diseases of the nervous system.....	6.67	1.67	5.00	.88	6.62			.05
21	Diseases of the eye.....	26.67		3.33	.63	19.87			.18
22	Diseases of the ear.....	11.67			.25				
23	Catarrhs and common colds.....	20.00			.17	6.62			.07
24	Bronchitis.....	31.67			.57	52.98			.45
25	Pneumonia.....	1.67			.12	6.62			.27
26	Pulmonary phthisis.....	3.33		1.67	.41	6.62	6.62		.25
27	Pleuritis.....	3.33		1.67	.21				
28	Other diseases of the respiratory system.....	3.33			.04				
29	Diseases of the heart and valves.....	3.33		3.33	.29	26.49			2.38
30	Other diseases of the circulatory system.....								
31	Tonsillitis.....	13.33			.25				
32	Dyspepsia, colic, and constipation.....	126.67			1.17	66.23			.73
33	Other diseases of the digestive system.....	56.67	1.67	1.67	.86	59.60			1.51
34	Diseases of the kidneys.....	8.33			.58				
35	Other diseases of the genito-urinary system (non-venereal).....	20.00		1.67	1.59	46.36			4.55
36	Diseases of the locomotor system (excluding muscular rheumatism).....	11.67		3.33	.45	19.87			.13
37	Diseases of the integumentary system.....	115.00			3.55	125.83			3.92
38	All other diseases.....	58.33			.94	105.96			3.18
39	Heat-stroke.....	8.33			.08	6.62			.07
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	116.67			3.07	158.94			2.79
42	Dislocations.....	6.67			.33				
43	Fractures (not gunshot).....	18.33			1.93				
44	Incised, lacerated, contused, and punctured wounds.....	46.67	1.67		1.45	46.36			2.88
45	Shot wounds.....	5.00	3.33		.22				
46	All other injuries.....	41.67		1.67	.83	72.85		6.62	2.67
Total for disease.....		1,156.67	3.33	26.67	28.49	1,430.46	19.87		49.97
Total for injury.....		243.33	5.00	1.67	7.96	284.77		6.62	8.42
Total for all causes.....		1,400.00	8.33	28.33	36.45	1,715.23	19.87	6.62	58.39

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Ringgold, Tex.				Camp at Eagle Pass, Tex.				In the field, Southern Group, Great Plains.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
											1
7.52			.29								2
172.93			10.73	89.29			2.84	400.00			3.56
15.04		7.52	.97	89.29			.83	100.00			.41
				17.86			.59				
75.19			5.99	17.86			1.13	100.00			.55
7.52			.43								
37.59			1.48	35.71			4.50				.96
7.52			.25								
142.86			1.67	17.86			.05				
60.15		15.04	8.45	35.71			.39				
								50.00			
				17.86			.15				
30.08			1.48				.20				.14
15.01			.58								
45.11			.97	17.86			.39				
15.04		7.52	.41								
				17.86			.10	150.00			.82
				17.86			4.60				
	7.52										
7.52			.43								
23.56			.10	35.71			1.08	50.00			.14
90.22			6.16	53.57			.24				.68
15.04			.25								
				17.86			13.01				
22.56		7.52	2.99	17.86			2.98	350.00			3.84
45.11			.78	71.43			.44				.41
				53.57							
97.74			1.40	125.00			2.15				
7.52			1.30								
52.63			2.00	71.43			1.71				2.60
7.52			.49								
37.59	7.52		.78	17.86			.20	150.00			.90
834.58	7.52	37.59	44.41	607.14			33.51	1,200.00			11.51
203.01	7.52		5.97	214.29			4.06	150.00			3.56
1,037.59	15.04	37.59	50.38	821.43			37.57	1,350.00			15.07

REPORT OF THE SECRETARY OF WAR.

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Cordilleras.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	7.83	.37		1.03
2	Other specific febrile and acute infectious diseases, including erysipelas	15.11	.19		.31
3	Malarial fevers and resulting conditions	71.80	.19	.19	2.93
4	Typho-malarial fever	.93			.14
5	Diarrhea, including cholera morbus	116.93	.19	.37	1.34
6	Dysentery	9.33	.56	.19	.43
7	Other miasmatic diseases				
8	Gonorrhea and results	23.50			1.96
9	Syphilis and results	17.90		3.91	1.57
10	Other venereal diseases	19.31			1.49
11	Vaccina	7.63			.14
12	Other enthetic diseases	2.98			.06
13	Alcoholism	44.57	.19	.37	.53
14	Other dietetic diseases	.73		.19	.01
15	Rheumatism, including muscular	89.89	.19	3.36	3.83
16	Other constitutional diseases	3.17	.19	.37	.99
17	Developmental diseases	.37		.19	.04
18	Parasitic diseases	.93			.01
19	Headache and neuralgia	63.41		.73	1.30
20	Other diseases of the nervous system	13.11	.74	3.73	1.37
21	Diseases of the eye	24.63		2.24	1.32
22	Diseases of the ear	4.28		.56	.33
23	Cataracts and common colds	23.19			.36
24	Bronchitis	37.63		.74	1.47
25	Pneumonia	3.73	1.30		.37
26	Pulmonary phthisis	4.48	.37	2.61	.83
27	Pleuritis	2.05		.19	.17
28	Other diseases of the respiratory system	3.73	.19		.29
29	Diseases of the heart and valves	6.34	1.12	1.12	.53
30	Other diseases of the circulatory system	1.31	.19	.37	.09
31	Tonsillitis	41.96		.19	.76
32	Dyspepsia, colic, and constipation	52.22		.19	1.03
33	Other diseases of the digestive system	55.76	.56	1.86	1.82
34	Diseases of the kidneys	2.42	.19	.37	.23
35	Other diseases of the genito-urinary system (non-venereal)	15.48		1.68	1.18
36	Diseases of the locomotor system (excluding muscular rheumatism)	7.46		2.24	.55
37	Diseases of the integumentary system	56.33		.19	1.93
38	All other diseases	31.89	.19	.75	1.50
39	Heat-stroke	.73			
40	Frost-bite and general freezing	2.43	.19		.08
41	Contusions and sprains	146.77		.19	3.81
42	Dislocations	1.86			.17
43	Fractures (not gunshot)	7.09	.19	.19	1.37
44	Incised, lacerated, contused, and punctured wounds	49.42		.37	1.73
45	Shot wounds	3.92	1.68	1.12	.83
46	All other injuries	38.79	1.12	1.68	1.19
Total for disease		906.19	6.90	28.91	31.53
Total for injury		251.03	3.17	3.54	9.17
Total for all causes		1,157.22	10.07	32.45	40.70

causes and ratios per 1,000 of mean strength, etc.—Continued.

Northern Group.				Fort Spokane, Wash.				Fort Sherman, Idaho.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
3.22			.20								
4.82			.16								.01
53.86	.80		1.16	48.58			1.66	39.68			.97
122.99			1.17	64.78			.60	51.59			.41
4.02		.80	.22					3.97			.17
20.90			1.58	16.19			1.94	43.65			1.84
11.25		2.41	1.04	12.15		4.05	1.71	3.97			.50
18.49			1.32	4.05			.27	26.81			.80
7.23			.14								
47.48			.50	20.24			.61	43.68			.59
2.41		.80	.05								
110.93		4.82	5.15	187.65		4.05	6.78	99.21		15.87	5.12
3.22	.80		.32								
53.05		.80	.98	38.44			.57	59.52			2.05
7.23	.80	1.61	1.23	4.05	4.05	4.05	3.37	7.94			.35
13.67		1.61	.59	12.15			.42	3.97			.03
6.43		.80	.83	8.10		4.05	1.91	3.97			.02
29.74			.73	4.05			.22	15.87			.22
91.64			2.59	174.09			5.02	107.14			5.03
1.61			.07								
5.63		4.82	1.83	8.10		4.05	1.40	7.94		11.90	1.77
1.61			.12					3.97			.29
4.02			.06				.04	3.97			.03
5.63	1.61	2.41	.53	12.15			.30	7.94	8.97	7.94	1.08
3.22		.80	.18								
47.43			.75	52.63			.99	27.78			.48
42.60			1.23	36.44			3.45	51.59			1.63
45.82		3.22	1.33	32.39		4.05	1.59	51.59		7.94	1.45
3.22			.54								
16.88		3.22	1.77	20.24		4.05	3.38	3.97			.49
6.43		2.41	.35	8.10		4.05	.80	7.94			.42
63.50			2.33	56.68			1.54	71.43			2.72
19.29			.70	8.10			.22	7.94			.13
.80											
4.02			.21	8.10			.48	3.97			.10
167.20			4.93	145.75			6.60	133.89			3.57
.80			.15	4.05			.19				
9.65			2.14	16.19			3.69	7.94			2.00
55.45			1.77	28.84			1.48	79.37			2.04
4.82	4.02	.80	.82		4.05				3.97		
40.19	1.61	2.41	1.00	24.29	4.05		2.38	47.62			.84
879.42	4.02	30.55	31.91	777.83	4.05	32.39	38.19	753.97	3.97	43.65	28.57
282.95	5.63	8.22	11.03	226.72	8.10		14.82	277.78	3.97		8.56
1,162.37	9.65	33.77	42.94	1,004.05	12.15	32.39	53.01	1,031.75	7.94	43.65	37.12

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Missoula, Mont.				Fort Walla Walla, Wash.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....								
2	Other specific febrile and acute infectious diseases, including erysipelas.....					6.97			.08
3	Malarial fevers and resulting conditions.....					128.92	3.48		2.18
4	Typho-malarial fever.....								
5	Diarrhea, including cholera morbus.....	283.13			2.89	205.57			1.78
6	Dysentery.....	12.05			.23				
7	Other miasmatic diseases.....								
8	Gonorrhoea and results.....	6.02			.31	6.97			.82
9	Syphilis and results.....	12.05		6.02	1.29	13.94			1.06
10	Other venereal diseases.....								
11	Vaccina.....								
12	Other enthetic diseases.....								
13	Alcoholism.....	156.63			1.22	24.39			.13
14	Other dietic diseases.....					6.97		3.48	.20
15	Rheumatism, including muscular.....	216.87		6.02	12.41	69.69			1.88
16	Other constitutional diseases.....					3.48			.31
17	Developmental diseases.....								
18	Parasitic diseases.....								
19	Headache and neuralgia.....	120.48		6.02	1.91	27.87			.24
20	Other diseases of the nervous system.....	12.05			.94	3.48			.12
21	Diseases of the eye.....	24.10		6.02	.45	13.94		3.48	1.56
22	Diseases of the ear.....					13.94			.35
23	Catarrhs and common colds.....	168.67			4.62				
24	Bronchitis and common colds.....	120.48			2.38	48.78			.59
25	Pneumonia.....								
26	Pulmonary phthisis.....					6.97		6.97	1.77
27	Pleuritis.....					3.48			.26
28	Other diseases of the respiratory system.....					10.45			.16
29	Diseases of the heart and valves.....	6.02		6.02	1.80		3.48		
30	Other diseases of the circulatory system.....	18.07			.45				
31	Tonsillitis.....	132.53			1.45	24.39			.63
32	Dyspepsia, colic, and constipation.....	54.22			.51	13.94			.06
33	Other diseases of the digestive system.....	24.10		6.02	1.27	48.78			.64
34	Diseases of the kidneys.....					3.48			.02
35	Other diseases of the genito-urinary system (non-venereal).....	30.12		6.02	3.25	10.45		3.48	.52
36	Diseases of the locomotor system (excluding muscular rheumatism).....	6.02			.05			3.48	
37	Diseases of the integumentary system.....	60.24			.99	83.62			2.85
38	All other diseases.....					13.94			.35
39	Heat-stroke.....								
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	246.99			6.85	174.22			5.02
42	Dislocations.....				.81				
43	Fractures (not gunshot).....					6.97			.98
44	Incised, lacerated, contused, and punctured wounds.....	78.31			3.05	59.23			2.04
45	Shot wounds.....		6.02			6.97	6.97		1.10
46	All other injuries.....	30.12		6.02	.18	55.75	3.48	6.97	1.15
Total for disease.....		1,463.86		42.17	38.42	794.42	6.97	20.91	18.68
Total for injury.....		355.42	6.02	6.02	10.89	303.14	10.45	6.97	10.30
Total for all causes.....		1,819.28	6.02	48.19	49.31	1,097.56	17.42	27.87	28.98

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Helena, Mont.				Boise Barracks, Idaho.				Fort Washakie, Wyo.				Camp Sheridan, Wyo.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
								32.26			2.89					1
				30.61			.48	8.06			1.06					2
				61.22			1.24	8.06			.18	19.23			.16	3
				30.61			.17	104.84			1.59	38.46			.11	4
								16.13		8.06	1.59					5
				30.61			3.08	32.26			2.85	19.23			3.90	6
				10.20			.53	8.06			.80	38.46	19.23		1.58	7
								129.03			11.14					8
				20.41			.34	56.45			1.15					9
				91.84			.81					19.23			.05	10
												19.23			.05	11
1,000.00		52.05		91.84			1.59	72.58			2.98	76.92			5.00	12
								8.06	8.06		.53	38.46			4.70	13
																14
1,000.00		13.70		30.61			.17	32.26			.38	115.38			.68	15
1,000.00		136.99						16.13		8.06	3.29					16
								40.32			.82					17
											3.67	19.23			.05	18
				40.82			.34									19
				40.82			.48	40.32			.73	19.23			.11	20
				10.20			.64	8.06			.15					21
				10.20			9.92									22
								8.06			.07					23
				10.20			.14								.11	24
				10.20	10.20		1.57									25
				61.22			.84	32.26			.60					26
				81.63			.67	56.45			.42	57.69			.42	27
				81.63			3.35	48.39			1.21	76.92			.47	28
				10.20			1.73	16.13			3.98					29
				10.20			.42	40.32			2.36	19.23	19.23		4.16	30
								16.13			.24	19.23	19.23		1.79	31
				51.02			1.03	48.39			5.92	38.46			.26	32
				40.82			2.57	88.71			2.83	19.23			1.58	33
				10.20			.06									34
								16.13			.99					35
				244.90			2.82	104.84			3.78	173.08			5.48	36
				30.61			7.13	8.06			2.19					37
				51.02			.73	16.13			.18	96.15			2.63	38
				30.61	10.20		4.17	8.06			2.39					39
				102.04			.78	8.06			.07					40
3,000.00	202.74	857.14	10.20	32.09	967.74	8.06	16.13	53.42	653.85	57.69	25.29					41
		469.39	10.20	15.69	161.29			9.59	269.23		8.11					42
3,000.00	202.74	1,328.53	20.41	47.78	1,129.03	8.06	16.13	63.01	923.08	57.69	33.40					43

Table showing, for each region and each military station therein, the

Names of regions and military stations.		In the field, Northern Group, Cordilleras.				Middle Group.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever					8.82			1.02
2	Other specific febrile and acute infectious diseases, including erysipelas					32.02	.46		.64
3	Malarial fevers and resulting conditions				.64	55.22			.82
4	Typho-malarial fever					.46			.12
5	Diarrhoea, including cholera morbus					95.13		.46	.82
6	Dysentery					3.71			.03
7	Other miasmatic diseases								
8	Gonorrhoea and results					13.46			.61
9	Syphilis and results					19.03		6.03	1.58
10	Other venereal diseases					8.35			.55
11	Vaccina					1.86			.05
12	Other enthetic diseases					2.78			.07
13	Alcoholism					51.97	.46		.61
14	Other dietetic diseases								
15	Rheumatism, including muscular					79.81	.46	4.18	3.11
16	Other constitutional diseases					3.25		.46	.08
17	Developmental diseases					.46		.46	.06
18	Parasitic diseases					.93			.61
19	Headache and neuralgia					78.89		.46	1.49
20	Other diseases of the nervous system					16.71	.93	4.64	1.36
21	Diseases of the eye					32.95		2.78	1.49
22	Diseases of the ear					2.78		.46	.18
23	Catarrhs and common colds					23.67			.24
24	Bronchitis					45.94		1.86	1.34
25	Pneumonia					5.10	1.39		.52
26	Pulmonary phthisis					3.25	.46	1.86	.37
27	Pleuritis					1.86		.46	.23
28	Other diseases of the respiratory system					2.78			.56
29	Diseases of the heart and valves					6.50	.93	.46	.46
30	Other diseases of the circulatory system					.93	.46		.61
31	Tonsillitis					51.04		.46	1.07
32	Dyspepsia, colic, and constipation				1.29	44.55		.46	.48
33	Other diseases of the digestive system					56.15	.93	.93	1.84
34	Diseases of the kidneys					.46			.02
35	Other diseases of the genito-urinary system (non-venereally)					12.53		1.39	.84
36	Diseases of the locomotor system (excluding muscular rheumatism)					5.57		2.78	.96
37	Diseases of the integumentary system					54.76			1.56
38	All other diseases					50.58	.46	.93	1.83
39	Heat-stroke					.46			
40	Frost-bite and general freezing					3.71	.46		.08
41	Contusions and sprains					134.57		.46	3.11
42	Dislocations					2.32			.26
43	Fractures (not gunshot)					7.42			.79
44	Incised, lacerated, contused, and punctured wounds					44.55		.93	1.60
45	Shot wounds					4.18	.46	.93	.85
46	All other injuries					34.80	.46	.46	1.18
Total for disease					1.92	874.24	6.96	31.55	26.40
Total for injury						232.02	1.39	2.79	7.87
Total for all causes					1.92	1,106.26	8.35	34.34	34.27

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Klamath, Oregon.				Fort Bidwell, Cal.				Fort McDermitt, Nev.				Fort Bridger, Wyo.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
								25.00			.96				1
				8.55			.09								2
63.83			1.28					50.00			1.10	95.24			3
21.28			.52	34.19			.09	50.00			.14	41.67			4
85.11			.47												5
															6
															7
				8.55	8.55	1.50						17.86			8
				17.09		1.43									9
				25.64		.16									10
												5.95			11
21.28			.06	8.55		.05						17.86			12
															13
63.83	21.28	1.63	34.19			.47						89.29			14
			8.55			.16								7.63	15
															16
															17
42.55	21.28	2.16	25.64			.16		25.00			.07	101.19			18
42.55		2.80	68.38			2.08						5.95			19
42.55	21.28	3.56	42.74			3.82		25.00			.48	5.95		5.95	20
21.28		3.96										11.90			21
												17.86			22
42.55		.47	51.28	8.55	2.88			25.00			.07	35.71			23
															24
				8.55	8.55	.35						5.95		5.95	25
															26
												5.95			27
				8.55		.05						23.81			28
								25.00			1.23				29
				42.74		.66		50.00			.27	83.33			30
42.55		.17	59.83			.70		100.00			.55	23.81		1.06	31
63.83		2.62	59.83			.70		150.00		25.00	9.38	29.76	5.95	1.08	32
															33
															34
															35
															36
21.28	42.55	2.27	17.09			3.00						5.95		5.95	.02
		.58	51.28			1.31		75.00			1.51	53.57			.75
			59.83			.54		50.00			.55	5.95			.05
															38
															39
21.28		.06	153.85			1.87		50.00			.27	107.14		5.95	2.15
						.12									41
								25.00			2.67	5.95			.68
															42
				17.09		.09		50.00			.21	101.19		5.95	3.52
															43
42.55		.35	25.64			.09		25.00			.07	35.71		5.95	1.19
															45
574.47	106.38	22.56	641.03	25.64	20.18	650.00	25.00	16.30	684.52	5.95	17.86	23.63			7.55
63.83		.41	106.58		2.18	150.00		3.22	250.00		17.86				
638.30	106.38	22.97	837.61	25.64	22.36	800.00	25.00	19.52	934.52	5.95	35.71	31.18			

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Douglas, Utah.				Fort Du Chesne, Utah.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	16.00	.....	.....	1.80	.....	.....	.....	.....
2	Other specific febrile and acute infections diseases, including erysipelas	18.67	2.67	.....	.78	13.45	.....	.....	.86
3	Malarial fevers and resulting conditions	5.33	.....	.....	.22	53.81	.....	.....	1.11
4	Typho-malarial fever .....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diarrhea, including cholera morbus.	154.67	.....	.....	1.42	112.11	.....	4.48	1.52
6	Dysentery .....	.....	.....	.....	.....	13.45	.....	.....	.16
7	Other miasmatic diseases. ....	.....	.....	.....	.....	.....	.....	.....	.....
8	Gonorrhoea and results	24.00	.....	.....	1.79	4.48	.....	.....	.22
9	Syphilis and results	21.33	.....	13.33	2.63	35.87	.....	26.91	2.17
10	Other venereal diseases	10.67	.....	.....	1.04	4.48	.....	.....	.28
11	Vaccina .....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other enthetic diseases.	5.33	.....	.....	.26	4.48	.....	.....	.19
13	Alcoholism	120.00	.....	.....	.96	31.39	.....	.....	.26
14	Other dietic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
15	Rheumatism, including muscular	96.00	.....	5.33	3.18	71.75	.....	.....	3.70
16	Other constitutional diseases	2.67	.....	.....	.01	13.45	.....	4.48	.43
17	Developmental diseases. ....	.....	.....	.....	.....	.....	.....	.....	.....
18	Parasitic diseases	2.67	.....	.....	.01	.....	.....	.....	.....
19	Headache and neuralgia	120.00	.....	.....	2.33	22.42	.....	.....	.16
20	Other diseases of the nervous system	8.00	.....	.....	.97	17.94	.....	13.45	1.83
21	Diseases of the eye	56.00	.....	5.33	2.20	17.94	.....	.....	1.70
22	Diseases of the ear	8.00	.....	.....	.35	.....	.....	.....	.....
23	Catarrhs and common colds. ....	.....	.....	.....	.....	40.36	.....	.....	.28
24	Bronchitis	31.67	.....	2.67	1.26	44.84	.....	.....	1.03
25	Pneumonia	5.33	.....	.....	.34	4.48	.....	.....	.21
26	Pulmonary phthisis	2.67	2.67	.....	.67	4.48	.....	4.48	.39
27	Pleuritis .....	.....	.....	.....	.....	.....	.....	.....	.11
28	Other diseases of the respiratory system.	2.67	.....	.....	.11	.....	.....	.....	.....
29	Diseases of the heart and valves .....	.....	.....	.....	.....	4.48	.....	4.48	.36
30	Other diseases of the circulatory system. ....	.....	.....	.....	.....	.....	.....	.....	.....
31	Tonsillitis	69.33	.....	.....	1.80	35.87	.....	.....	.75
32	Dyspepsia, colic, and constipation	32.00	.....	.....	.39	13.45	.....	.....	.06
33	Other diseases of the digestive system	50.67	.....	.....	.66	67.26	.....	.....	1.07
34	Diseases of the kidneys .....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of the genito-urinary system (non-venereal)	21.33	.....	.....	1.95	17.94	.....	4.48	.57
36	Diseases of the locomotor system (excluding muscular rheumatism)	10.67	.....	2.67	.43	4.48	.....	.....	.04
37	Diseases of the integumentary system	61.33	.....	.....	2.24	76.23	.....	.....	1.24
38	All other diseases	160.00	.....	2.67	5.81	17.94	.....	.....	2.08
39	Heat-stroke .....	.....	.....	.....	.....	4.48	.....	.....	.02
40	Frost-bite and general freezing .....	.....	.....	.....	.....	17.94	4.48	.....	.42
41	Contusions and sprains	154.67	.....	.....	4.32	121.08	.....	.....	2.72
42	Dislocations	5.33	.....	.....	.45	.....	.....	.....	.....
43	Fractures (not gunshot) .....	.....	.....	.....	.....	4.48	.....	.....	.04
44	Incised, lacerated, contused, and punctured wounds	26.67	.....	2.67	2.01	80.72	.....	.....	3.19
45	Shot wounds .....	.....	.....	.....	.....	8.97	4.48	.....	.60
46	All other injuries	48.00	.....	.....	1.56	17.94	.....	.....	.31
Total for disease		1,120.00	5.33	32.00	35.65	748.88	.....	62.78	29.52
Total for injury		234.67	.....	2.67	8.34	255.60	8.97	.....	7.40
Total for all causes		1,354.67	5.33	34.67	43.99	1,004.48	8.97	62.78	29.92

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Crawford, Colo.				Fort Lewis, Colo.				Fort Union, N. Mex.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
.....	6.78	.....	.....	1.19	.....	.....	.....	.....	1
72.2959	3.39	.....	.....	.07	152.73	.....	.....	1.94	2
48.1933	30.51	.....	.....	.82	7.27	.....	.....	.18	3
.....	3.39	.....	.....	.89	.....	.....	.....	.47	4
.....	14.95	.....	.....	.42	65.45	.....	.....	.....	5
24.1043	.....	.....	.....	.....	.....	.....	.....	.....	6
24.10	12.05	1.52	10.17	.....	.....	.27	10.91	.....	.....	.78	7
.....	13.56	.....	.....	.78	18.18	.....	.....	2.45	8
.....	10.17	.....	.....	.62	3.64	.....	.....	.09	9
.....	8.39	.....	.....	.14	3.64	.....	.....	.01	10
.....	30.51	.....	.....	.27	94.65	3.64	.....	1.75	11
36.14	12.05	5.48	81.36	.....	3.39	2.77	50.91	.....	.....	1.81	12
.....	6.78	.....	.....	.20	.....	.....	.....	.....	13
.....	3.39	.....	3.39	.46	.....	.....	.....	.....	14
48.19	1.91	27.12	.....	.....	.62	65.45	.....	.....	.97	15
24.10	12.05	1.98	20.34	.....	6.78	2.80	25.45	3.64	7.27	2.25	16
12.0510	23.73	.....	.....	1.06	14.56	.....	.....	.33	17
48.1946	.....	.....	.....	.....	.....	.....	.....	.....	18
.....	13.56	.....	.....	.08	.....	.....	.....	.....	19
.....	57.63	.....	3.39	3.50	3.64	.....	.....	.01	20
.....	13.56	3.39	.....	1.14	7.27	3.64	.....	1.77	21
12.0585	3.64	.....	.....	.05	22
.....	10.17	.....	.....	.14	.....	.....	.....	.02	23
.....	13.56	6.78	.....	.59	.....	.....	.....	.....	24
132.53	1.39	3.39	.....	.....	.09	.....	.....	.....	.....	25
60.2417	111.86	.....	.....	1.19	10.91	.....	3.64	1.57	26
24.10	1.25	54.24	.....	.....	.64	36.36	.....	.....	.46	27
.....	94.92	3.39	.....	3.67	7.27	.....	.....	.46	28
12.0513	.....	.....	.....	.....	.....	.....	.....	.....	29
.....	3.39	.....	3.39	.09	21.82	.....	.....	.96	30
72.2969	.....	.....	.....	.16	.....	.....	.....	.....	31
36.1420	71.19	.....	.....	2.64	43.64	.....	.....	2.11	32
.....	47.46	.....	.....	1.19	18.18	3.64	.....	1.21	33
.....	34
60.24	2.38	3.39	.....	.....	.02	.....	.....	.....	.....	35
.....	135.59	.....	.....	4.13	105.45	.....	.....	1.99	36
.....	3.39	.....	.....	.27	3.64	.....	.....	1.01	37
.....	10.17	.....	.....	1.25	18.18	.....	.....	1.91	38
84.3463	33.90	.....	.....	1.27	43.64	.....	.....	1.28	39
24.10	12.05	10.89	10.17	.....	.....	1.63	.....	.....	.....	.....	40
60.24	12.05	.....	1.72	27.12	.....	.....	.91	32.73	.....	.....	.56	41
686.75	36.14	28.88	793.22	13.56	20.34	29.37	665.45	14.55	10.91	21.68	42
228.91	12.05	12.05	15.61	223.73	.....	.....	9.49	203.64	.....	.....	6.75	43
915.66	12.05	48.19	44.49	1,016.95	13.56	20.34	38.86	869.09	14.55	10.91	28.41	44

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Wingate, N. Mex.				Fort Marcy, N. Mex.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever								
2	Other specific febrile and acute infectious diseases, including erysipelas					62.50			1.13
3	Malarial fevers and resulting conditions	190.77			2.26	37.50			.31
4	Typho-malarial fever								
5	Diarrhoea, including cholera morbus	100.00			.74	37.50			.31
6	Dysentery					12.50			.14
7	Other miasmatic diseases								
8	Gonorrhoea and results	21.54			.52	37.50			.75
9	Syphilis and results	21.54			1.30	25.00			1.64
10	Other venereal diseases	12.31			.25	37.50			3.53
11	Vaccina	3.08			.30				
12	Other enthetic diseases								
13	Alcoholism	43.08			.30				
14	Other dietetic diseases								
15	Rheumatism, including muscular	89.23		6.15	2.11	75.00	12.50	12.50	2.16
16	Other constitutional diseases								
17	Developmental diseases								
18	Parasitic diseases	3.08			.03				
19	Headache and neuralgia	156.92			1.21	137.50			.79
20	Other diseases of the nervous system	6.15		6.15	.36	12.50	12.50		.45
21	Diseases of the eye	49.23		6.15	1.80	75.00			.75
22	Diseases of the ear								
23	Cataracts and common colds	101.54			1.20				
24	Bronchitis	52.31		3.08	1.22	112.50			1.23
25	Pneumonia					12.50	12.50		.14
26	Pulmonary phthisis	9.23		3.08	.81				
27	Pleuritis					12.50		12.50	2.40
28	Other diseases of the respiratory system								
29	Diseases of the heart and valves	9.23			1.48				
30	Other diseases of the circulatory system								
31	Tonsillitis	12.31			.43	37.50			.41
32	Dyspepsia, colic, and constipation	49.23			.72	150.00			1.20
33	Other diseases of the digestive system	67.69		3.08	2.67	75.00			.72
34	Diseases of the kidneys	3.08			.11				
35	Other diseases of the genito-urinary system (non-venereal)	15.38		3.08	1.58	25.00			1.61
36	Diseases of the locomotor system (excluding muscular rheumatism)	6.15		3.08	.30			12.50	
37	Diseases of the integumentary system	43.08			.95	12.50			.10
38	All other diseases	12.31		3.08	.72	25.00			1.44
39	Heat-stroke								
40	Frost-bite and general freezing								
41	Contusions and sprains	215.36			4.43	125.00			2.77
42	Dislocations					12.50			.17
43	Fractures (not gunshot)	9.23			.50				
44	Incised, lacerated, contused, and punctured wounds	36.92			1.15	62.50			1.61
45	Shot wounds	3.08		3.08	.28				
46	All other injuries	21.54			.74	75.00			2.36
Total for disease		1,138.46		36.92	23.32	1,012.50	37.50	37.50	21.20
Total for injury		286.16		3.08	7.19	275.00			6.92
Total for all causes		1,424.62		40.00	30.51	1,287.50	37.50	37.50	28.12

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Camp Pilot Butte, Wyo.				Camp Medicine Butte, Wyo.				Camp near Denver, Colo.				In the field, Middle Group, Cordilleras.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
163.45			11.87									47.62			6.13
57.47			1.89					285.71		3.91		47.62			.78
												95.24			1.70
160.92			1.89									571.43			5.61
								71.43		2.35					
								71.43		3.33					
68.97			2.42												
183.91		11.49	4.98	200.00		9.86		285.71		7.44		47.62		2.48	
34.48			.19					71.43		1.17		47.62		.13	
11.49			.03	200.00		6.03						95.24		6.26	
		11.49	.60												
91.95			1.29					71.43		.20					
11.49			1.23					357.14		8.52					
												47.62		1.17	
11.49			.50												
	11.49														
								71.43		.98					
34.48		11.49	1.07					71.43		.20		47.62		.39	
45.98			5.48	200.00		.55		71.43		.50					
45.98			1.13									95.24		3.26	
80.46			1.83												
11.49			.06									95.24		3.52	
91.95			2.30	200.00		1.10		142.86		2.35		47.62		1.04	
11.49			4.47									47.62		.13	
11.49			.25			7.12									
11.49			2.58												
45.98			7.34									95.24		.91	
942.53	11.49	34.48	36.40	600.00		16.44		1,428.57		23.68		1,142.86		27.92	
183.91			17.01	200.00		8.22		142.86		2.35		285.71		5.61	
1,126.44	11.49	34.48	53.41	800.00		24.06		1,571.43		26.03		1,428.57		33.53	

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Southern Group.				Fort Mojave, Ariz.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	9.68	1.02		1.54				
2	Other specific febrile and acute infectious diseases, including erysipelas	3.06			.05	20.41			.05
3	Malarial fevers and resulting conditions	101.37		.51	3.88	20.41			.05
4	Typho-malarial fever	2.04			.24				
5	Diarrhoea, including cholera morbus	137.03	.51	.51	2.01	102.04			.67
6	Dysentery	18.85	1.53		.99	20.41			.45
7	Other miasmatic diseases								
8	Gonorrhoea and results	36.17			1.76	40.82			2.80
9	Syphilis and results	20.89		2.55	1.90	142.86		20.41	8.89
10	Other venereal diseases	31.58			2.42				
11	Vaccina	14.26			.22				
12	Other enthetic diseases	5.09			.08				
13	Alcoholism	34.04		1.02	.47	122.45			1.51
14	Other dietetic diseases	.51			.01				
15	Rheumatism, including muscular	87.62		1.53	3.79	142.86			3.02
16	Other constitutional diseases	3.06		.51	.31				
17	Developmental diseases	.51			.05				
18	Parasitic diseases	1.53			.03				
19	Headache and neuralgia	52.98		1.02	1.06				
20	Other diseases of the nervous system	18.34	.51	4.08	1.15	20.41			1.63
21	Diseases of the eye	22.41		2.04	1.30				
22	Diseases of the ear	4.58		.51	.23				
23	Catarrhs and common colds	18.34			.25	61.22			.78
24	Bronchitis	48.90			.90				
25	Pneumonia	3.57	2.04		.40				
26	Pulmonary phthisis	5.09	.51	2.04	.70	20.41		20.41	3.30
27	Pleuritis	2.55			.14				
28	Other diseases of the respiratory system	4.58	.51		.14				
29	Diseases of the heart and valves	6.62	1.02	1.02	.58				
30	Other diseases of the circulatory system	.51		.51	.11				
31	Tonsillitis	28.53			.49	20.41			.45
32	Dyspepsia, colic, and constipation	66.73			1.56	20.41			.17
33	Other diseases of the digestive system	61.64	.51	2.04	2.09				.34
34	Diseases of the kidneys	4.08	.51	1.02	.27				
35	Other diseases of the genito-urinary system (non-venereal)	17.83		1.02	1.18	20.41			.22
36	Diseases of the locomotor system (excluding muscular rheumatism)	10.19		1.53	.88				
37	Diseases of the integumentary system	53.49		.51	2.14	40.82			.22
38	All other diseases	19.35		1.02	1.65	20.41			.11
39	Heat-stroke	1.02							
40	Frost-bite and general freezing								
41	Contusions and sprains	147.22			3.87	61.22			.50
42	Dislocations	2.04			.08				
43	Fracture (not gunshot)	5.09	.51	.51	1.52				
44	Incised, lacerated, contused, and punctured wounds	50.94			1.83	20.41			.22
45	Shot wounds	3.06	1.53	1.53	.79				
46	All other injuries	42.28	1.53	2.55	1.33	61.22			1.29
Total for disease		958.23	8.66	24.96	36.99	836.73		40.82	24.88
Total for injury		251.65	3.57	4.59	9.42	142.86			2.01
Total for all causes		1,209.98	12.23	29.55	46.41	979.59		40.82	26.89

causes and ratios per 1,000 of mean strength, etc.—Continued.

Whipple Barracks, Ariz.				Fort Verde, Ariz.				Fort Apache, Ariz.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
39.11			.75	38.46			1.21	10.53			.26
44.69			.58	76.92			.84	15.79			.87
			1.30					42.11			.23
22.35			1.80					15.79			.53
				57.69		38.46	8.80				.72
16.76			.18					10.53			.26
44.69	11.17	2.63		269.23			7.43	5.26			.07
								15.79			.13
5.59		5.59	1.85	38.46							
50.28		16.76	7.25	19.23		19.23	1.05	78.95			.16
22.35			.64	19.23			5.95	5.26		5.26	1.14
5.59			.06				.21	31.58		5.26	1.08
55.87		1.01		134.62				10.53			2.05
11.17	5.59	1.29					1.37	126.32			.27
								21.05			1.67
11.17											.56
								5.26			.43
11.17	5.59	1.10									
	5.59	.67									
16.76		.29		19.13			.05				
22.35		.31		96.15			1.05	78.95			1.46
22.35	11.17	5.80		38.46			1.00	73.68	5.26		1.98
				19.23			.37				.33
11.17		.06		19.23			.47	15.79			.76
5.59		.05				19.23	2.48	26.32			3.14
27.93		.94		38.46			1.42	52.63			7.07
5.59		.32		19.23			1.00	10.53			.75
				19.23			.05				
78.21		4.13		211.54			4.37	89.47			3.50
				19.23			2.63				2.16
27.93		1.13		38.46			1.63	42.11			1.38
11.17		.44		38.46			1.37	47.37	5.26		.43
441.34	61.45	29.34	903.84	76.92	34.78	789.47	5.26	10.53	29.99		
117.31		5.71	326.92		10.06	178.95	5.26		10.15		
558.65	61.45	35.05	1,230.76	76.92	44.79	968.42	10.53	10.53	40.14		

Table showing, for each region and each military station therein

Names of regions and military stations.		Fort McDowell, Ariz.				San Carlos, Ariz.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever					9.17			.75
2	Other specific febrile and acute infectious diseases, including erysipelas	10.75			.29				
3	Malarial fevers and resulting conditions	32.26			1.44	55.05			4.90
4	Typho-malarial fever								
5	Diarrhoea, including cholera morbus	204.30		10.75	4.56	229.36			3.19
6	Dysentery	53.76			3.71	91.74	9.17		2.01
7	Other miasmatic diseases								
8	Gonorrhoea and results								
9	Syphilis and results	10.75			.91	36.70			2.16
10	Other venereal diseases					9.17			.15
11	Vaccina					9.17			.23
12	Other enthetic diseases	32.26			.24				
13	Alcoholism	21.51			.50				
14	Other dietetic diseases								
15	Rheumatism, including muscular	129.03			4.60	64.22			2.80
16	Other constitutional diseases	10.75			.97	18.35			1.33
17	Developmental diseases								
18	Parasitic diseases								
19	Headache and neuralgia	64.52			.41	119.27			1.58
20	Other diseases of the nervous system	53.76	10.75		.44	18.35			.13
21	Diseases of the eye	21.51		10.75	.15	9.17			.18
22	Diseases of the ear					9.17			.10
23	Catarrhs and common colds	10.75			.06	27.52			.28
24	Bronchitis	64.52			.85	128.44			2.81
25	Pneumonia	10.75			2.27	18.35	9.17		1.18
26	Pulmonary phthisis					9.17			1.18
27	Pleuritis					18.35			.38
28	Other diseases of the respiratory system	10.75			.35	18.35	9.17		.20
29	Diseases of the heart and valves	21.51			.38				
30	Other diseases of the circulatory system								
31	Tonsillitis	32.26			.44	27.52			.63
32	Dyspepsia, colic, and constipation	10.75			.03	73.39			.93
33	Other diseases of the digestive system	107.53			3.42	36.70			.75
34	Diseases of the kidneys								
35	Other diseases of the genito-urinary system (non-venereal)	43.01			.53	36.70			2.19
36	Diseases of the locomotor system (excluding muscular rheumatism)	10.75			.03				
37	Diseases of the integumentary system	86.02			2.12	36.70			1.63
38	All other diseases	32.26			3.18	27.52			.83
39	Heat-stroke								
40	Frost-bite and general freezing								
41	Contusions and sprains	139.78			2.95	43.87			1.78
42	Dislocations								
43	Fractures (not gunshot)		10.75		.38				
44	Incised, lacerated, contused, and punctured wounds	10.75			.06	45.87			2.06
45	Shot wounds					18.35	9.17		1.46
46	All other injuries	53.76			1.53	82.57			3.54
Total for disease		1,086.02	10.75	21.50	31.90	1,137.62	27.52		32.00
Total for injury		204.30	10.75		4.92	192.65	9.17		8.84
Total for all causes		1,290.32	21.50	21.50	36.82	1,339.27	36.70		40.81

the causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Thomas, Ariz.				Fort Bayard, N. Mex.				Fort Selden, N. Mex.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
64.94	6.49		12.79	6.64			.93				
6.49			.05	3.32			.08				
194.81			14.27	83.06			3.00	209.30			1.91
			2.81								
285.71			3.17	63.12			1.45	23.26			.18
								23.26			.25
6.49			.14	13.29			.57				
25.97			1.35	9.97		6.64	1.65				
12.99			.34	6.64			1.07				
32.47			.11	53.16			.52	23.26			.19
				3.32			.01	23.26			.13
51.95		6.49	.73	56.48		3.32	.40	93.02			.57
				3.32			.14				
58.44			1.44	43.19			1.57	279.07			14.46
				3.32			.07	23.26			3.12
116.88			1.71	23.26			.76	186.05			2.04
				9.97			.13	46.51			.13
38.96			4.87	16.61		3.32	.70				
				6.64			.50				
								23.26			1.21
84.42			1.39	9.97			.08	209.30			3.06
6.49	6.49		.05								
			1.30					69.77		46.51	8.92
6.49			.39								
				9.97			.12	46.51			.51
					3.32			46.51			.45
				56.48			.82	23.26			.06
				26.58			.32	69.77			.64
331.17			10.69	60.77		3.32	1.59	232.56			2.68
32.47			2.17								
19.48		6.49	2.85								
6.49			.05	19.93			.87				
				9.97		3.32	.16	23.26			.25
32.47			.80	29.90			.4	69.77			2.04
51.95			6.17	6.64			.36	46.51			5.29
				3.32			.02				
162.34			2.94	142.86			2.39	93.02			.76
				6.64			.32				
				3.32		3.32	2.08	23.26			1.85
58.44			.04	43.19			2.82	46.51			.70
6.49			1.10	6.64			.17				
38.96			.41	19.93	3.32	6.64	.34	23.26			.25
1,467.53	12.99	12.99	69.15	644.52	3.32	19.93	18.68	1,790.70		46.51	48.93
266.24			5.39	225.91	3.32	9.97	8.64	186.05			3.57
1,733.77	12.99	12.99	74.54	870.43	6.64	29.90	27.32	1,976.75		46.51	52.50

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Fort Grant, Ariz.				Fort Bowie, Ariz.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	5.03	.....	.....	.89	20.00	6.67	.....	1.53
2	Other specific febrile and acute infectious diseases, including erysipelas .....	.....	.....	.....	.....	.....	.....	.....	.....
3	Malarial fevers and resulting conditions	241.21	.....	5.03	6.90	26.67	.....	.....	.73
4	Typho-malarial fever .....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diarrhoea, including cholera morbus	185.93	.....	.....	3.81	73.33	.....	.....	.75
6	Dysentery	35.18	5.03	.....	2.68	6.67	.....	.....	.09
7	Other miasmatic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
8	Gonorrhoea and results	105.53	.....	.....	5.27	26.67	.....	.....	.60
9	Syphilis and results	40.20	.....	.....	4.14	.....	.....	.....	.....
10	Other venereal diseases	130.65	.....	.....	13.41	66.67	.....	.....	5.15
11	Vaccina	5.03	.....	.....	.06	.....	.....	.....	.....
12	Other enthetic diseases .....	.....	.....	.....	.....	6.67	.....	.....	.04
13	Alcoholism .....	.....	.....	.....	.....	13.33	.....	.....	.40
14	Other dietic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
15	Rheumatism, including muscular	85.43	.....	.....	5.22	46.67	.....	.....	1.37
16	Other constitutional diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
17	Developmental diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
18	Parasitic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
19	Headache and neuralgia	55.28	.....	.....	1.12	60.00	.....	6.67	1.31
20	Other diseases of the nervous system .....	.....	.....	.....	.....	26.67	.....	6.67	.46
21	Diseases of the eye	30.15	.....	.....	2.22	20.00	.....	.....	.38
22	Diseases of the ear .....	.....	.....	.....	.....	6.67	.....	.....	.03
23	Catarrhs and common colds .....	.....	.....	.....	.....	.....	.....	.....	.18
24	Bronchitis	70.35	.....	.....	2.09	33.33	.....	.....	.....
25	Pneumonia	5.03	5.03	.....	1.29	.....	.....	.....	.....
26	Pulmonary phthisis	5.03	5.03	.....	.85	.....	.....	.....	.....
27	Pleuritis .....	.....	.....	.....	.55	6.67	.....	.....	.22
28	Other diseases of the respiratory system .....	.....	.....	.....	.....	6.67	.....	.....	1.08
29	Diseases of the heart and valves .....	.....	.....	.....	.....	13.33	.....	.....	1.04
30	Other diseases of the circulatory system .....	.....	.....	.....	.....	.....	.....	.....	.....
31	Tonsillitis	95.48	.....	.....	1.93	.....	.....	.....	.....
32	Dyspepsia, colic, and constipation	15.08	.....	.....	.10	66.67	.....	.....	.47
33	Other diseases of the digestive system	85.43	.....	.....	2.23	26.67	.....	.....	.18
34	Diseases of the kidneys .....	.....	.....	.....	.....	6.67	6.67	.....	.05
35	Other diseases of the genito-urinary system (non-venereal)	10.05	.....	5.03	4.16	.....	.....	.....	.....
36	Diseases of the locomotor system (excluding muscular rheumatism)	5.03	.....	.....	.21	33.33	.....	6.67	4.51
37	Diseases of the integumentary system	30.15	.....	.....	2.31	60.00	.....	6.67	2.26
38	All other diseases .....	.....	.....	.....	.....	13.33	.....	.....	3.25
39	Heat-stroke .....	.....	.....	.....	.....	.....	.....	.....	.....
40	Frost-bite and general freezing .....	.....	.....	.....	.....	.....	.....	.....	.....
41	Contusions and sprains	301.51	.....	.....	8.37	160.00	.....	.....	3.38
42	Dislocations	5.03	.....	.....	.21	.....	.....	.....	.....
43	Fractures (not gunshot) .....	.....	.....	.....	2.05	.....	.....	.....	.....
44	Incised, lacerated, contused, and punctured wounds	115.58	.....	.....	4.65	86.67	.....	.....	2.96
45	Shot wounds .....	.....	.....	5.03	2.48	6.67	6.67	.....	.49
46	All other injuries	40.20	5.03	.....	.98	46.67	.....	.....	.57
Total for disease		1,241.20	15.08	10.05	61.41	666.67	13.33	6.67	26.14
Total for injury		462.32	5.03	5.03	18.74	300.00	6.67	.....	7.29
Total for all causes		1,703.52	20.10	15.08	80.15	966.67	20.00	26.67	33.53

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Lowell, Ariz.				Fort Huachuca, Ariz.				In the field, Southern Group, Cordilleras.			
Admitted.	Died.	Discharged.*	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
				3.95			.57	20.83			2.85
174.83			7.99	130.44			2.26	62.50			4.22
20.98			.31	3.95			.31				
132.87			.86	260.87			3.98	62.50	20.83		.47
41.96			.94	11.86	3.95		1.20				.47
132.87			6.28	51.38			2.74				.63
34.96			2.61	19.76			2.10	20.83			.80
83.92			2.95	27.67			1.55				.11
				11.86			.82				
13.99			.57	7.91			.15				
62.94			1.11	55.34			.94				
			.06								
118.88		6.99	4.89	94.86			6.33	62.50			2.00
		6.99		3.95			.86				
				3.95			.40				
				7.91			.13				
34.96			.21	31.62			.67	20.83			1.37
41.96		6.99	.48	7.91		3.95	.48				
34.96		6.99	3.16	19.76			.40				
				11.86		3.95	.89				
6.99			.02	7.91			.04				
60.93			1.42					20.83			.28
				7.91	3.95		.74				
6.99			.10								
				3.95			.10				
6.99	6.99		.04	15.81		3.95	2.84				
6.99			.65								
6.99			.04	27.67			.41				
139.86			4.85	7.91		3.95	.65				.11
76.92			2.22	59.29			1.88	83.33			.63
20.98		6.99	.52								
34.96		6.99	1.76	19.76			1.25	20.83			.28
				7.91			.76	20.83			.23
104.89			2.66	106.72			2.49				.40
27.97			.73	35.57		7.91	2.88				
223.78			7.47	138.34			3.73	62.50			1.71
								20.83			.28
13.99			6.13	15.81			1.52	20.83			.57
34.96			.36	47.43			1.26	20.83			.68
						7.91	2.01				
48.95	6.99	6.99	.65	71.14		7.91	2.62				.17
1,440.56	6.99	41.96	47.42	1,067.19	7.90	23.72	40.18	395.83	20.83		14.84
321.68	6.99	6.99	14.62	272.73		15.81	11.13	125.00			3.43
1,762.24	13.98	48.95	62.04	1,339.92	7.90	39.53	51.31	520.83	20.83		18.27

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Pacific Coast.				Northern Group.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	3.70			.49				.03
2	Other specific febrile and acute infectious diseases, including erysipelas	11.73			.58	25.04			1.09
3	Malarial fevers and resulting conditions	53.09			1.60	80.13			2.02
4	Typho malarial fever .....	.62			.09				
5	Diarrhoea, including cholera morbus	49.38			.55	58.43			.87
6	Dysentery	11.11			.30				
7	Other miasmatic diseases								
8	Gonorrhoea and results	22.22			1.73	31.72			2.64
9	Syphilis and results	21.60		4.94	1.43	21.70		3.34	1.24
10	Other venereal diseases	13.58			1.06	8.35			.37
11	Vaccina	8.64			.19	3.34			.26
12	Other enthetic diseases	1.85			.01	1.67			.01
13	Alcoholism	51.23			.70	68.45			1.01
14	Other dietie diseases								
15	Rheumatism, including muscular	72.22		4.32	4.32	101.84		6.68	5.35
16	Other constitutional diseases	3.09		.62	.14	1.67			.10
17	Developmental diseases .....	.62		2.47	.03				
18	Parasitic diseases .....	.62			.01				
19	Headache and neuralgia	43.21			1.04	55.09			1.61
20	Other diseases of the nervous system	8.64	.62	1.23	.81	11.69			.48
21	Diseases of the eye	14.81		1.85	.84	20.03		1.67	1.03
22	Diseases of the ear	4.32		1.23	.15	6.68		1.67	.36
23	Catarrrhs and common colds	7.41			.08	3.34			.12
24	Bronchitis	58.64			1.22	71.79			2.03
25	Pneumonia	1.85			.47				
26	Pulmonary phthisis	2.47		1.23	.20	3.34			.32
27	Pleuritis	1.85			.08	1.67			.07
28	Other diseases of the respiratory system	3.70		1.85	.65	5.01		3.34	1.39
29	Diseases of the heart and valves	7.41	.62	3.09	.88	13.36	1.67	1.67	.57
30	Other diseases of the circulatory system	1.85		.62	.22				
31	Tonsillitis	21.60			.24	25.04			.26
32	Dyspepsia, colic, and constipation	32.72			.74	46.74			.90
33	Other diseases of the digestive system	52.47		3.09	1.99	63.44		3.34	2.42
34	Diseases of the kidneys	2.47	1.85		.34	1.67	1.67		.18
35	Other diseases of the genito-urinary system (non-venereal)	11.73			1.11	20.03			1.69
36	Diseases of the locomotor system (excluding muscular rheumatism)	6.17		3.70	.54	6.68		3.34	.92
37	Diseases of the integumentary system	55.56			1.21	35.06			.82
38	All other diseases	7.41		.62	.47	5.01		1.67	.34
39	Heat-stroke	1.85			.01				
40	Frost-bite and general freezing								
41	Contusions and sprains	109.26			3.17	136.89			3.24
42	Dislocations	1.23			.12				
43	Fractures (not gunshot)	7.41		.62	1.22	6.68		1.67	1.41
44	Incised, lacerated, contused, and punctured wounds	36.42			1.13	36.73			1.32
45	Shot wounds	1.85	1.23		.11		1.67		
46	All other injuries	31.48	1.85	1.85	1.49	35.06	1.67	1.67	1.60
Total for disease		671.61	3.09	30.86	26.51	798.00	3.34	26.71	30.51
Total for injury		189.50	3.09	2.47	7.25	215.36	3.34	3.34	7.56
Total for all causes		861.11	6.17	33.33	33.76	1,013.36	6.68	30.05	38.07

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Townsend, Wash.				Fort Canby, Wash.				Vancouver Barracks, Wash.				In the field, Northern Group, Pacific Coast.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
											.03				1
								31.91			1.40				2
18.87			.05					100.00			2.56				3
94.34			.67	30.30			.50	59.57			.96				4
															5
37.74			.98					36.17			3.25				6
				30.30	15.15		1.25	23.40		2.13	1.51				7
18.87			1.97	30.30			.71	4.26			.15				8
18.87			2.84					2.13			.01				9
								2.13			.01				10
18.87			.67	121.21			.54	68.08			1.13				11
															12
188.08	18.87	14.06		166.67	15.15		8.55	85.11		4.26	4.03				13
								2.13			.13				14
															15
				45.45			.33	63.83			1.99				16
				15.15			.33	12.77			.56				17
18.87			2.43	15.15			1.20	21.28		2.13	.87				18
								8.51		2.13	.45				19
								4.26			.16				20
94.34			2.64	30.30			.37	76.60			2.23				21
															22
18.87			3.31					2.13			.04				23
								2.13			.09				24
															25
				45.45			1.20	6.38		4.26	1.76				26
								16.64	2.13	2.13	.56				27
															28
															29
37.74			.10	60.61			.46	19.15			.25				30
				60.61			.33	51.06			1.11				31
															32
132.08			1.45	30.30			.33	61.70		4.26	2.87				33
								2.13	2.13		.23				34
18.87			1.91	15.15			.04	21.28			1.93				35
				15.15			.17	6.38		4.26	1.15				36
															37
75.47			2.95	30.30			.17	31.91			.68				38
37.74			1.40					2.13		2.13	.28				39
															40
169.81			1.60	90.91			1.95	142.53			3.66				41
															42
								8.51		2.13	1.79				43
															44
56.60			1.24	45.45			.91	34.04			1.41				45
															46
				90.91			1.12	31.91	2.13	2.13	1.87				
830.19	18.87	37.43		742.43	30.30	16.48		810.15	4.26	27.66	32.35				
226.41		2.84		227.27		3.98		217.02	4.26	4.26	8.76				
1,056.60	18.87	40.27		969.70	30.30	20.46		1,036.17	8.51	31.91	41.11				

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Southern Group.				Fort Gaston, Cal			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever	5.88	.....	.....	.76	27.78	.....	.....	5.25
2	Other specific febrile and acute infectious diseases, including erysipelas	3.92	.....	.....	.28	.....	.....	.....	.....
3	Malarial fevers and resulting conditions	37.22	.....	.....	1.35	.....	.....	.....	.....
4	Typho-malarial fever .....	.98	.....	.....	.14	.....	.....	.....	.....
5	Diarrhœa, including cholera morbus	44.07	.....	.....	.37	111.11	.....	.....	.61
6	Dysentery	17.63	.....	.....	.47	.....	.....	.....	.....
7	Other miasmatic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
8	Gonorrhœa and results	16.65	.....	.....	1.20	55.56	.....	.....	4.19
9	Syphilis and results	21.55	.....	5.88	1.54	55.56	27.78	.....	2.06
10	Other venereal diseases	16.65	.....	.....	1.46	111.11	.....	.....	5.86
11	Vaccina	11.75	.....	.....	.14	.....	.....	.....	.....
12	Other enthetic diseases	1.96	.....	.....	.01	.....	.....	.....	.....
13	Alcoholism	41.14	.....	.....	.52	194.44	.....	.....	.91
14	Other dietetic diseases .....	.....	.....	.....	.....	.....	.....	.....	.....
15	Rheumatism, including muscular	54.85	.....	2.94	3.72	138.89	.....	.....	22.53
16	Other constitutional diseases	3.92	.....	.98	.16	.....	.....	.....	.....
17	Developmental diseases .....	.98	.....	3.92	.05	.....	.....	.....	.....
18	Parasitic diseases .....	.98	.....	.....	.02	.....	.....	.....	.....
19	Headache and neuralgia	36.24	.....	.....	.71	55.56	.....	.....	3.42
20	Other diseases of the nervous system	6.86	.98	1.96	1.00	.....	.....	.....	.15
21	Diseases of the eye	11.75	.....	1.96	.72	.....	.....	.....	.....
22	Diseases of the ear	2.94	.....	.98	.03	27.78	.....	.....	.15
23	Catarrhs and common colds	9.79	.....	.....	.06	83.33	.....	.....	.23
24	Bronchitis	50.93	.....	.....	.74	55.56	.....	.....	.15
25	Pneumonia	2.94	.....	.....	.74	.....	.....	.....	.....
26	Pulmonary phthisis	1.96	.....	1.96	.13	.....	.....	.....	.....
27	Pleuritis	1.96	.....	.....	.09	.....	.....	.....	.....
28	Other diseases of the respiratory system	2.94	.....	.98	.22	.....	.....	.....	.....
29	Diseases of the heart and valves	3.92	.....	3.92	1.07	.....	.....	.....	.....
30	Other diseases of the circulatory system	2.94	.....	.98	.35	.....	.....	.....	.....
31	Tonsillitis	19.59	.....	.....	.22	.....	.....	.....	.....
32	Dyspepsia, colic, and constipation	24.49	.....	.....	.65	55.56	.....	.....	.15
33	Other diseases of the digestive system	46.03	.....	2.94	1.73	166.67	.....	.....	.84
34	Diseases of the kidneys	2.94	1.96	.....	.44	.....	.....	.....	.....
35	Other diseases of the genito-urinary system (non-venereal)	6.86	.....	.....	.77	55.56	.....	.....	8.90
36	Diseases of the locomotor system (excluding muscular rheumatism)	5.88	.....	3.92	.31	.....	.....	.....	.....
37	Diseases of the integumentary system	67.53	.....	.....	1.44	194.44	.....	.....	2.28
38	All other diseases	8.81	.....	.....	.55	55.56	.....	.....	.38
39	Heat stroke	2.94	.....	.....	.01	.....	.....	.....	.....
40	Frost-bite and general freezing .....	.....	.....	.....	.....	.....	.....	.....	.....
41	Contusions and sprains	93.06	.....	.....	3.13	166.67	.....	.....	1.14
42	Dislocations	1.96	.....	.....	.19	.....	.....	.....	.....
43	Fracture, (not gunshot)	7.84	.....	.....	1.12	27.78	.....	.....	2.51
44	Incised, lacerated, contused, and punctured wounds	36.24	.....	.....	1.02	83.33	.....	.....	.91
45	Shot wounds	2.94	.98	.....	.18	.....	.....	.....	.....
46	All other injuries	29.38	1.96	1.96	1.43	55.56	.....	.....	.46
Total for disease		597.45	2.94	33.30	24.17	1,444.45	.....	27.78	58.68
Total for injury		174.34	2.94	1.96	7.07	333.33	.....	.....	5.02
Total for all causes		771.79	5.88	35.26	31.24	1,777.78	.....	27.78	63.70

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Fort Mason, Cal.				Alcatraz Island, Cal.				Angel Island, Cal.				
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	
								7.04			.64	1
23.81			1.76									2
23.81			.47					35.21			2.55	3
71.43			.39									4
				21.98			.45	21.13			.27	5
											.23	6
23.81			.59					42.25			3.11	7
								21.13		7.04	1.27	8
23.81			.91	10.99			1.17	21.13			1.97	9
23.81			.33					28.17			.27	10
23.81			.07									11
				32.97			.45	35.21			.52	12
												13
47.62			.46	10.99			.06	35.21			2.18	14
												15
										14.08		16
								7.04			.14	17
95.24			.85	32.97			2.47	21.13			.14	18
	23.81						.39			7.04	.29	19
47.62			.33	10.99			.69	21.13			1.00	20
								7.04			.14	21
												22
				109.89			1.78	84.51			.73	23
				10.99			.81	7.04			2.39	24
23.81		23.81	2.61							7.04		25
												26
						10.99				7.04		27
											5.08	28
								7.04			2.38	29
				32.97			.24	42.25			.33	30
				32.97			4.18	7.04			.10	31
47.62			2.93	43.96			.91	49.30		7.04	1.00	32
23.81	23.81		.52									33
				10.99			.91					34
												35
								7.04			.12	36
95.24			2.28	98.90			8.01	112.68			2.35	37
23.81			.20				.15				.04	38
												39
23.81			2.08	65.93			1.02	77.46			3.96	40
												41
23.81			2.54					7.04			1.60	42
												43
71.43			1.04	32.97			.33	21.13			.29	44
												45
23.81			.39	21.98			.12	35.21	7.04	7.04	1.49	46
619.05	47.62	23.81	14.68	461.54		10.99	17.67	619.72		49.30	29.21	
142.85			6.06	120.88			1.48	140.84	7.04	7.04	7.37	
761.90	47.62	23.81	20.74	582.42		10.99	19.15	760.56	7.04	56.34	86.58	

Table showing, for each region and each military station therein, the

Names of regions and military stations.		Presidio of San Francisco, Cal.				Benicia Barracks, Cal.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....				.31				
2	Other specific febrile and acute infectious diseases, including erysipelas.....	4.95			1.42				
3	Malarial fevers and resulting conditions.....	49.50			1.11	63.49			4.73
4	Typho-malarial fever.....					15.87			2.30
5	Diarrhoea, including cholera morbus.....	17.33			.13	47.62			.43
6	Dysentery.....				.07				
7	Other miasmatic diseases.....								
8	Gonorrhoea and results.....	12.38			1.30				
9	Syphilis and results.....	32.18		2.48	2.29				
10	Other venereal diseases.....	9.90			1.12				
11	Vaccina.....	12.38			.20				
12	Other enthetic diseases.....								
13	Alcoholism.....	42.08			.72	31.75			.65
14	Other dietetic diseases.....								
15	Rheumatism, including muscular.....	64.36		2.48	5.04	95.24		15.87	7.38
16	Other constitutional diseases.....	9.90		2.48	.40				
17	Developmental diseases.....								
18	Parasitic diseases.....								
19	Headache and neuralgia.....	37.13			.54	31.75			.13
20	Other diseases of the nervous system.....	7.43		2.48	.79	15.87			1.14
21	Diseases of the eye.....	14.85		4.95	1.28				
22	Diseases of the ear.....	2.48		2.48	.02				
23	Catarrhs and common colds.....	14.85			.12				
24	Bronchitis.....	7.43			.46	47.62			.43
25	Pneumonia.....								
26	Pulmonary phthisis.....								
27	Pleuritis.....	2.48			.16	15.87			.35
28	Other diseases of the respiratory system.....	4.95		2.48	.55				
29	Diseases of the heart and valves.....	7.43		2.48	.81				
30	Other diseases of the circulatory system.....								
31	Tonsillitis.....	19.80			.33	15.87			.26
32	Dyspepsia, colic, and constipation.....	19.80			.40	15.87			.22
33	Other diseases of the digestive system.....	39.60		4.95	1.38	47.62			3.37
34	Diseases of the kidneys.....		2.48		.86				
35	Other diseases of the genito-urinary system (non-venereal).....	2.48			.16	31.75			5.07
36	Diseases of the locomotor system (excluding muscular rheumatism).....	4.95		2.48	.37				
37	Diseases of the integumentary system.....	47.63			1.18				
38	All other diseases.....	9.90			1.00	15.87			1.26
39	Heat stroke.....					47.62			.22
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	111.38			3.94	63.49			2.30
42	Dislocations.....				.06	15.87			.65
43	Fractures (not gunshot).....	7.43			.92				.26
44	Incised, lacerated, contused, and punctured wounds.....	43.08			1.25	47.62			4.73
45	Shot wounds.....	7.43	2.48		.45				
46	All other injuries.....	34.65	2.48	2.48	2.50	15.87			1.00
Total for disease.....		497.53	2.48	29.70	23.52	492.06		15.87	27.70
Total for injury.....		202.97	4.95	2.48	9.12	190.48			9.18
Total for all causes.....		700.48	7.43	32.18	32.64	682.54		15.87	36.88

causes, and ratios per 1,000 of mean strength, etc.—Continued.

Benicia Arsenal, Cal.				San Francisco, Cal.				Los Angeles, Cal.				San Diego Barracks, Cal.			
Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
												58.82			6.45
18.52			.15												
92.50			.76									98.04			.43
18.52			.15												
18.52			.30									39.22			.91
18.52			.41									19.61	19.61	5.37	
												39.22			5.75
18.52			.20									39.22			.27
92.50			1.07									19.61			.11
												58.82			.33
												98.04	19.61	1.60	
													19.61		
92.50			1.42									39.22			.32
18.52			.10	23.26								19.61			10.64
															.05
												19.61			.11
111.11			1.32									274.51			3.87
															6.02
												19.61			.38
18.52			.05					35.71			.59	19.61			.21
55.56			7.00									117.65			1.13
18.52			1.12									117.65			4.68
												19.61			.32
18.52			1.42									39.22			.43
18.52			.66												
55.56			1.98	23.26			1.40	107.14			1.56	98.04			1.34
								35.71			5.97	19.61			2.58
37.04			.41									39.22			.80
37.04			2.03									19.61			.16
629.63			16.13	23.26				35.71			.59	1,156.86		58.82	49.42
129.63			4.42	23.26			1.40	142.86			7.53	176.47			4.80
759.26			20.55	46.51			1.40	178.57			8.12	1,333.33		58.82	54.31

Table showing, for each region and each military station therein, the causes, and ratios per 1,000 of mean strength, etc.—Continued.

Names of regions and military stations.		In the field, Southern Group, Pacific Coast.				Hot Springs, Ark.			
Causes of admission to sick report.		Admitted.	Died.	Discharged.	Constantly non-effective.	Admitted.	Died.	Discharged.	Constantly non-effective.
1	Enteric fever.....	14.93			.61				
2	Other specific febrile and acute infectious diseases, including erysipelas.....	14.93			.57				
3	Malarial fevers and resulting conditions.....	104.48			2.68				
4	Typho-malarial fever.....								
5	Diarrhoea, including cholera morbus.....	223.88			2.37	47.62			18.13
6	Dysentery.....	223.88			5.52			47.62	59.23
7	Other miasmatic diseases.....								
8	Gonorrhoea and results.....	14.93			.45	47.62			2.35
9	Syphilis and results.....	29.85		29.85	1.28	47.62			33.79
10	Other venereal diseases.....	14.93			1.39				
11	Vaccina.....								
12	Other enthetic diseases.....								
13	Alcoholism.....	59.70			.29				
14	Other dietetic diseases.....								
15	Rheumatism, including muscular.....	14.93			.12	238.10		142.86	487.41
16	Other constitutional diseases.....								11.74
17	Developmental diseases.....	14.93		14.93	.78				
18	Parasitic diseases.....								
19	Headache and neuralgia.....	14.93			.08	47.62		47.62	41.88
20	Other diseases of the nervous system.....						47.62		44.88
21	Diseases of the eye.....								
22	Diseases of the ear.....								
23	Catarrhs and common colds.....								
24	Bronchitis.....	29.85			.12				
25	Pneumonia.....	14.93			.61				
26	Pulmonary phthisis.....								
27	Pleuritis.....								
28	Other diseases of the respiratory system.....	14.93			.04				
29	Diseases of the heart and valves.....	14.93		14.93	.53				
30	Other diseases of the circulatory system.....	29.85		14.93	.39				
31	Tonsillitis.....	14.93			.08	47.62			4.57
32	Dyspepsia, colic, and constipation.....	29.85			.16				
33	Other diseases of the digestive system.....					47.62			30.09
34	Diseases of the kidneys.....							95.24	30.01
35	Other diseases of the genito-urinary system (non-venereal).....	14.93			.04				35.88
36	Diseases of the locomotor system (excluding muscular rheumatism).....	44.78		44.78	2.29				
37	Diseases of the integumentary system.....	164.18			1.59	47.62			8.87
38	All other diseases.....					47.62			26.61
39	Heat stroke.....								
40	Frost-bite and general freezing.....								
41	Contusions and sprains.....	149.25			5.81				
42	Dislocations.....								
43	Fractures (not gunshot).....	14.93			2.39				
44	Incised, lacerated, contused, and punctured wounds.....	14.93			.45				
45	Shot wounds.....								
46	All other injuries.....	29.85			.20				
Total for disease.....		1,119.40	119.40	22.90	571.43	95.24	333.33	836.01	
Total for injury.....		208.96		8.75					
Total for all causes.....		1,328.36	119.40	31.65	571.43	95.24	333.33	836.01	

REPORT OF THE PAYMASTER-GENERAL.

REPORT OF THE PAYMASTER-GENERAL.

PAYMASTER-GENERAL'S OFFICE,
Washington, D. C., September 20, 1888.

SIR: I have the honor to submit a report of the transactions of the Pay Department of the Army for the fiscal year ending June 30, 1888. The tabular statements herewith presented exhibit the details from which the following statement in gross is made:

RECEIPTS AND DISBURSEMENTS DURING THE FISCAL YEAR ENDING JUNE 30, 1888.

Balance in hands of paymaster July 1, 1887	\$1,339,014.59
Amount received from the Treasury	14,066,995.04
Amount received from soldiers' deposits	386,944.10
Amount received from paymasters' collections	305,710.28
Total to be accounted for	16,098,664.01

Accounted for as follows:

Disbursements:	
To the Army	\$12,886,885.43
To the Military Academy	203,892.67
To the Signal Service	207,625.03
To the Volunteers (on Treasury certificates)	1,163,349.86
Total	14,461,702.99
Surplus funds deposited in Treasury	123,026.02
Paymasters' collections deposited in Treasury	305,710.28
Balance in hands of paymasters June 30, 1888	1,208,224.72

Total accounted for..... 16,098,664.01

The disbursements as compared with the amounts paid on like account during the previous fiscal year show a net increase of \$231,346.13, as follows:

Increase:	
To the Signal Service	\$18,422.97
To the Volunteers (Treasury certificates)	310,224.90
Total increase	328,647.87
Decrease:	
To the Army	\$93,379.31
To the Military Academy	3,922.43
	97,301.74
	231,346.13
	873

The failure of the deficiency bill presented to the last Congress at its second session deferred the payment of a large number of settled claims until this Congress by the act of February 1, 1888, made provision for their payment. To this accumulation of claims is due the large increase in the amount disbursed during the last fiscal year on Treasury certificates.

So much of the act of July 7, 1884 (23 Stats., 254), as directs that the Secretary of the Treasury shall report the amount due each claimant, whose claim has been allowed in whole or in part, to Congress for consideration, was no doubt intended to cover claims wherein mooted questions and technical points as to the legal or equitable right to recover were involved, and upon which the accounting officers were called to exercise their discretion and judgment. The application, however, of this rule to all classes of claims, and particularly to those involving a mere statement of an account of pay, bounty, etc., which, if they had been presented at any time during the years in which the appropriation was available, would have been paid at once and without question, does not seem to be required by any rule of policy looking to the better protection of the public interests.

It is a serious hardship to many claimants of this latter class to have the payment of their ascertained claims so long deferred, as is evidenced by the voluminous correspondence received at this office. It is difficult for many of them to understand why, after the claim has been allowed, it can not be paid.

If it were possible to relieve these claims from the operation of the act referred to, by making appropriations in anticipation of the allowance by the accounting officers of the Treasury, upon whose report the appropriation is ultimately made, it would, in my opinion, be not only a matter of justice to the claimant, but one of economy to the United States. The claims could be paid at once upon certification; the volume of correspondence would be materially reduced; a uniform rate of payment would be maintained, and the evils of the present method, under which, immediately upon the passage of the deficiency bill, this office is deluged with claims and requests for payment, taxing and straining to the uttermost the limited resources of the office to meet the extraordinary demand upon it, would be avoided.

The number of officers of this Department is reduced by casualties to forty-three; within eight of the organization fixed by the act of July 5, 1884. Of this number only thirty-eight are available for disbursing duty, including one officer who has made application for retirement and is now on temporary duty in this office.

MONTHLY PAYMENTS.

In order to extend the system of monthly payments to the entire Army, in response to the numerous applications made upon me, I recommended in my last annual report that the number of paymasters with the rank of major be fixed at forty. During the current session of Congress legislation was proposed to accomplish this end. But, although the committee of one House, to whom the matter was referred, reported favorably on the proposition and did not deem the request for additional force extravagant, it was held otherwise elsewhere; so the proposition to grant the additional force was defeated, while that of paying the Army monthly was concurred in.

To test the actual needs of the Department in this respect, I called upon the chief paymasters to report to this office what posts in their sev-

eral departments can be paid monthly, in addition to those now so paid, with their present force of paymasters, and what additional force, if any, would be required to pay all the posts monthly.

The chief paymaster Department of the Missouri reports:

In addition to the posts in this department already paid monthly, Forts Riley and Hays, Kans., and Fort Sheridan, Ill., can be paid by the present force; and to make payment promptly to all the posts of the department monthly, and allow for sickness and leave, it will require two in addition to the present number of paymasters.

The chief paymaster Department of Texas reports:

With the force of paymasters now assigned to this department, monthly payments can be made to all the posts, except Forts Brown and Ringgold. With one additional paymaster monthly payments can be made at all the posts in the Department of Texas.

The chief paymaster Department of Dakota reports:

In addition to the payment at Fort Snelling, it is thought that monthly payments can be made at Forts A. Lincoln, Keogh, Custer, Missoula, Shaw, Assiniboine, and Mende, except in very inclement winter weather. In the opinion of this office an additional force of two paymasters would be required, so that a paymaster might be available for local payments at stations during the absence of others making field payments monthly.

The chief paymaster Department of the Platte reports:

Monthly payments can be made by the paymasters now on duty in this department to all the troops serving in the department, except those stationed at Forts Du Chesne, Washakie, and McKinney. With one additional officer, and all properly stationed, the troops at all the posts can be paid monthly.

The chief paymaster Department of Arizona reports:

That with the present force of paymasters the following posts can be paid monthly: Forts Union, Marcy, and Wingate, N. Mex.; Grant, Bowie, and Huachuca, Ariz., immediately.

Commencing with payments to October 31, or when Major Smith shall have returned from leave:

Forts Apache, San Carlos, and McDowell, Ariz., can be added to this list for monthly-payments.

To pay all the posts in this department monthly will require two more paymasters, one stationed at Albuquerque, N. Mex., to divide the labor with Major Maynadier, and one at Los Angeles, Cal., or Whipple Barracks, Ariz.

The travel necessary to make the payments from Tucson, Ariz., is very hard, and will take at least twenty days for one and six days for the other, in good weather, every other month, for each of the two paymasters now doing that duty. The new post or camp at San Carlos, Ariz., to be established at an early day, will add from one to three days to the long journey.

A third paymaster could do effective work if stationed where he could divide these labors with Major Wham and Smith, and at the same time be available in case of sickness or other disability in the force.

The chief paymaster Department of the Columbia reports:

That Fort Townsend, Wash., Fort Sherman and Boise Barracks, Idaho, can be paid monthly, in addition to those now so paid (Vancouver Barracks and Fort Walla Walla, Wash.), with the present number of paymasters.

As long as Fort Klamath is garrisoned, monthly payments can not be made with less than four paymasters, and it would work three paymasters continually to make monthly payments at all the posts except Klamath.

With one other paymaster I can pay all the posts monthly, but he would have to be stationed here to alternate with Major Muhlenberg and myself on the Klamath trip, which is a very hard one, especially from now to May; and the trip to Spokane during the same months is a difficult one.

In connection with this, I will say that this office is the most important one in the department, and should never be without a paymaster, which is frequently the case as I am now situated; and therefore I recommend, if the force is increased, that the paymaster be stationed here.

The chief paymaster Department of California reports:

That with the present force of paymasters belonging to the Department of California (one chief and two assistants), Benicia Arsenal might be included in the posts to be paid monthly. To extend the monthly payment to other posts (Forts Gaston, Bidwell, and McDermit), one additional paymaster would be required.

The chief paymaster Division of the Atlantic reports :

While nine paymasters would be kept busy, it would require at least eight to pay the troops monthly at all the posts and stations of this division, including officers and enlisted men on recruiting service and detached duty, on leave of absence, as well as officers and enlisted men retired. This number admits of no absence for sickness or for any other causes, without imposing too much work on those remaining, unless for a very few days in the neighborhood of the 20th of the month.

Four of these paymasters should have station in New York City. The three paymasters now in New York City are overworked, being obliged to labor most of the time from 9 a. m. until 5 or 6 p. m., including Sundays.

It is not deemed advisable to add any more posts to the list of monthly musters in this division without an increase in number of paymasters.

From these reports it seems that to the 41 posts now paid monthly 38 additional ones can be added, making 79 out of a total of 141, leaving 62 posts to which monthly payments can not be extended. To pay these remaining posts the chief paymasters estimate that 12 paymasters, in addition to the 38 officers available for field duty, will be required. While I think this estimate is liberal, it demonstrates that the number named by me, 40 paymasters (in addition to the 3 deputy paymaster-generals and 2 assistant paymasters-general), as necessary to pay the entire Army monthly, was at least 5 below the number required.

As to whether or not the system of monthly payments has been of benefit to the service to the extent claimed by its advocates this office has no general information.

In order however that the experiment may be tested in as large a field as the limited force of paymasters will permit, I asked the Adjutant-General of the Army to have the necessary instructions issued to have mustered for pay monthly the troops at all the posts reported by the chief paymasters that could be paid monthly with their present force.

In this connection it is suggested that a more simple form of pay-roll might be adopted for the payment of troops on the dates other than the regular bi-monthly muster. A roll exhibiting only the data necessary to compute the pay of each man would materially lessen the labor incident upon its preparation and examination and reduce the bulk of the voucher.

MILEAGE.

The amount appropriated in the Army for the last fiscal year for the payment of mileage, \$85,000, was practically exhausted, as premised in my last report, on December 31, 1887. A deficiency estimate based on the travel for the corresponding period during the past year, amounting to \$40,308.76, was submitted and allowed.

This additional appropriation was expended before the close of the year, and it became necessary to again call upon Congress for another appropriation. Mileage claims to the amount of over \$5,000 are now awaiting payment in this office.

The amounts disbursed on orders issued from the several Departments chargeable to these appropriations were as follows :

Department of Arizona.....	\$11,648.10
Department of the Columbia	2,982.88
Department of California and Division of the Pacific.....	5,120.78
Department of Texas.....	4,433.31
Department of the Missouri	4,862.72
Department of the Platte	6,770.47
Department of Dakota	10,247.33
Division of the Missouri.....	4,241.44
Division of the Atlantic.....	9,904.07
Adjutant-General's Office	65,097.48
Total.....	125,308.58

It has been found necessary, owing to the opening of so many new lines of travel, to revise the present official table of distances. A new edition is now in press and will shortly be issued.

SOLDIERS' DEPOSITS.

While the total amount of soldiers' deposits, \$386,944.10, during the last fiscal year, was less than the amount deposited during the previous year, the records show an increase in the number of deposits and of new depositors. This would seem to indicate that this admirable provision of law continues to grow in favor with the enlisted men. The small depositors are those whom it is most desirable to encourage.

PAYMENT OF TREASURY CERTIFICATES.

Under the deficiency bills of February 1, 1888, and March 30, 1888, this office has paid 12,681 claims for arrears of pay and bounty.

There are at this date but 85 claims unpaid on hand. These are held awaiting replies from postmasters as to the present addresses of the claimants. The repeal of the law requiring a payment in person to colored claimants, and placing them on the same footing as other claimants, has greatly expedited the payment of these claims, at a saving of expense to the Government and without loss to the claimants so far as this office has knowledge to date.

PAYMASTER-GENERAL'S OFFICE.

During the fiscal year ending June 30, 1888, there were three hundred and twenty-two stoppages made against officers, amounting to \$14,862.21, as follows:

By request of Quartermaster-General	\$1,613.24
By request of Commissary-General	158.64
By request of Chief of Ordnance	894.15
By request of accounting officers of Treasury (sec. 1766, Rev. Stat.)	9,006.12
Ordered by the Secretary of War	309.17
Suspensions in the Paymaster-General's Office	2,880.89
Total	14,862.21
Of this amount there was collected	\$5,543.47
Withdrawn	2,427.74
	<hr/> 7,971.21

Balance remaining on the books June 30, 1888 6,891.00

The reports from the several divisions of the office show as follows:

Accounts rendered by paymasters (on hand July 1, 1887)	67
Accounts received to June 30, 1888	487
Total	554
Accounts sent to Second Auditor	495
Accounts on hand June 30, 1888	59
 Number of payments recorded	 61,244
Number of vouchers examined	55,872
Number of letters received and entered	10,229
Number of letters written	6,021
Number of indorsements written	<u>2,882</u>

In the division of volunteer records the number of cases on hand for report to the Adjutant-General and Second Auditor, July 1, 1887, was.....	1,099
Received to June 30, 1887	29,998
Total	31,097
Number of cases answered	31,097
Number on hand June 30, 1888.....	None.

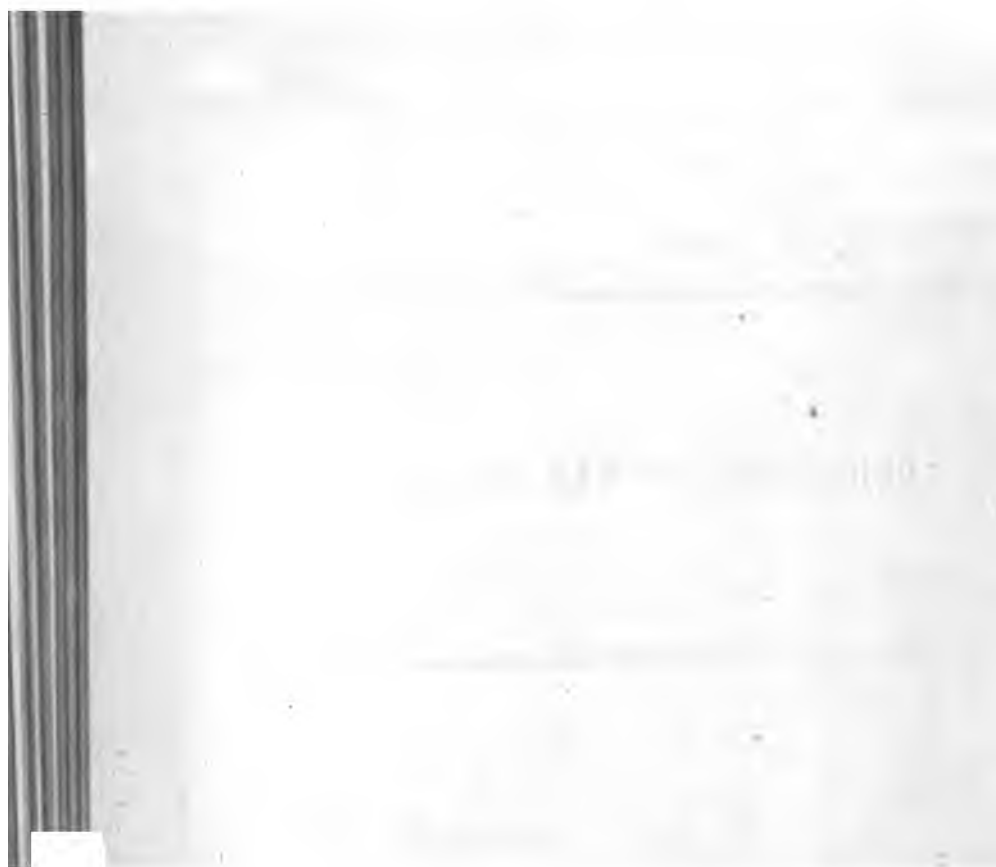
The report from the division of volunteer records shows that all inquiries received from the Adjutant-General and from the Second Auditor on or before June 30, 1888, had been answered before the close of business that day. Since the first of the calendar year the work in that division has been practically up to date; but few cases remained unanswered from one day to another, the exception being those of more than ordinary obscurity, requiring a more protracted and diligent search of the records to obtain the information desired.

I am, sir, very respectfully, your obedient servant,

WM. B. ROCHESTER,
Paymaster-General U. S. Army.

The SECRETARY OF WAR.

PUBLICATION OF WAR RECORDS



REPORT

OF

PUBLICATION OF WAR RECORDS.

WAR DEPARTMENT,
PUBLICATION OFFICE WAR RECORDS, 1861-'65,
Washington, D. C., October 10, 1884.

SIR: I have the honor to submit the following report of progress made since October 5, 1887, the date of my last report, in the work of the publication of the Records of the War of the Rebellion:

Of Series I, Volumes XIX (two books), Parts 1 and 2; XX (two books), Parts 1 and 2; XXI (one book), have been issued and distributed. Volume XXII, Part 1, is now going through the press and will soon be distributed.

The indexes of Volume XXII, Part 2, and Volume XXIII, Part 1, are now in the hands of the printer, and, when completed, these volumes will be ready for publication and distribution.

The stereotyping of Volume XXVII (three books), and Part 1, Volume XXVIII, is completed. Part 2 of Volume XXVIII is now in the hands of the printer for the same purpose.

The manuscript of Volume XXXVI (three books), and Volume XXXVII (two books), has been arranged for the printer, while that of Volume XXX (two books), is nearly ready.

The expenditures for printing, binding, etc., since October 5, 1887, have been as follows:

For composition and stereotyping—	
Volume XVIII	\$3,881.88
Volume XXIII, Part 1	283.86
Volume XXVI, Part 2	1,299.69
Volume XXVII, Part 1	2,693.25
Part 2	2,440.18
Part 3	2,444.82
Volume XXVIII, Part 1	557.00
	<hr/> 13,600.68 <hr/>
For the completion of—	
Volume XVIII	3,454.00
Volume XIX, Part 1	7,594.42
Part 2	5,739.80
Volume XX, Part 1	7,420.81
Part 2	4,514.64
Volume XXI	7,959.78
	<hr/> 36,682.45 <hr/>
Total expenditures	<hr/> 50,283.13 <hr/>

881

Balance on hand, appropriation, 1877-78	\$51,551.12
Appropriation fiscal year 1878-79	25,000.00
Total	76,551.12
Expenditures	39,552.13
Balance	37,998.99

Expenditures for salaries and rent during the fiscal year ending June 30, 1878, have been as follows:

Salaries	\$27,430.33
Rent	1,200.00

Fuel, lights, stationery, and all other incidental expenses have been provided by the supply division of the War Department.

The period of 1863 is covered by Volumes XIV to XXXI, inclusive; and that of 1864 by Volumes XXXII to XLIV, inclusive. The manuscript has been practically arranged for the period of 1864 so far as to include Volume XXXVIII.

Twenty-one volumes or 31 books have been already published, while the work is stereotyped to include Part 1 of Volume XXVIII, or 46 books; that is, 15 books in advance of the publication.

This advanced stage of the stereotyping makes it quite possible to issue the publication more rapidly, or at the rate of about eight books a year, and yet maintain the stereotyping well in advance. But, as the annual appropriation for the past six years has been only \$36,000, and as the average cost of 11,000 copies of each book is about \$9,000, it will be seen that until Congress sees fit to increase the amount for publication not more than four books can be issued annually.

Very respectfully, your obedient servant,

H. M. LAZELLE,
Lieutenant Colonel Twenty-third Infantry,
U. S. Army, In Charge.

THE SECRETARY OF WAR.

BOARD OF COMMISSIONERS OF THE SOLDIERS' HOME.



REPORT

OF

BOARD OF COMMISSIONERS OF THE SOLDIERS' HOME.

OFFICE OF THE BOARD OF COMMISSIONERS
OF THE SOLDIERS' HOME,
Washington, D. C., October 20, 1888.

SIR: In obedience to section 1 of the act of Congress approved March 3, 1883, making regulations for the Soldiers' Home in the District of Columbia, I have the honor to submit the following, which has been adopted by the Board of Commissioners of the Home as the report for the year ending September 30, 1888:

The record of admissions and re-admissions of persons entitled to the benefits of the Home shows the following:

	Regular.	Temporary.	Total.
Number on the rolls September 30, 1887	934	57	991
Admitted during the year	236	255	491
Re-admitted during the year	65		65
			1,547
Discharged, dropped, etc.	144	101	245
Dismissed	12		12
Died	46	7	53
Transferred to regular		153	153
			463
Number on the rolls September 30, 1888			1,084

The number of original admissions has been greater than in any one year since the Home was established, and the applications are increasing. All who applied could not be accommodated, and some who were known to be in receipt of liberal pensions, or were situated so that there would be little, if any, hardship in denying their present requests, were put off in order that more pressing cases could be provided for. A more liberal course will be possible during the coming winter, when there will be new quarters to be occupied.

The condition of the finances of the Home is improving very slowly, as will be seen from the following statement:

Balance of permanent fund in United States Treasury October 1, 1887.	\$1,607,597.93
Deposits on account of Treasury settlements.....	415,160.93
Deposit on account of bonds matured.....	31,000.00
	<hr/>
	2,053,758.86
Withdrawn for current expenses and building.....	259,860.00
	<hr/>
Balance in United States Treasury October 1, 1888.....	1,793,898.86

The deposit on account of bonds matured was money received on account of Missouri Pacific Railroad 6 per cent. bonds, which were paid at maturity, and the money was deposited in the permanent fund in accordance with section 8 of the act mentioned in the first part of this report. The Home has now no money invested except in the stock of the Young Men's Christian Association, joint stock company of the District of Columbia, which has been entirely unprofitable, but upon which there will be realized in a few weeks nearly 70 per cent. of the amount originally invested. The sale of the property and the particulars upon which this expectation is based were stated in the last annual report of the Board.

The interest account of the permanent fund shows that the receipts from the United States Treasury during the year have amounted to \$50,149.33, and that there was a balance due the Home, October 1, 1888, of \$13,468.43.

The receipts and disbursements by the treasurer of the Home during the year (not including \$31,000 changed from an investment in bonds to a deposit in the permanent fund) are shown by his report to be as follows:

On hand October 1, 1887.....	\$55,179.31
Received from the permanent fund.....	259,860.00
Received on account of interest.....	50,276.47
Received as effects of deceased inmates.....	623.64
Received from miscellaneous sources.....	1,987.33
	<hr/>
Total.....	367,926.75
Aggregate expenses for the year.....	312,270.64
	<hr/>
Remaining on hand September 30, 1888.....	55,656.11

The principal items of the expense account are:

For new building.....	\$127,668.22
For subsistence, etc.....	47,595.58
For the farm, garden, and dairy.....	25,235.22
For out-door relief (section 6, act March 3, 1883).....	23,672.73
For extra-duty pay and allowance to inmates.....	21,361.23
For fuel.....	14,741.94
For clothing.....	14,177.05
For material and labor for general repairs.....	5,747.48

The item for the new building comprises the payments which have been made upon the building contract, which was mentioned in the last annual report, and it is proper to state that the greater portion of the funds shown by the treasurer to be remaining on hand September 30, 1888, is intended to be applied upon the contract for the new building, which is now nearly completed. All of the other items, as well as the minor ones shown in the treasurer's financial statement, are expenditures on account of current expenses which were necessary for the proper maintenance of the Home, were economically made, and, as far as pos-

sible, were made under contract with the lowest responsible bidder, as required by law.

The reports of the governor, the treasurer, and of the attending surgeon are submitted herewith and made a part of this report to show progress and condition of the internal affairs of the Home.

It is appropriate that record should be made of the great loss which the Board of Commissioners and the Soldiers' Home have sustained in the decease of General Philip H. Sheridan, which occurred August 5, 1888. As president of the Board of Commissioners his greatest care and constant effort were given to the promotion of the financial interests of the Home and to the most economical administration of its affairs. His considerate personal treatment of the inmates and of soldiers applying for admission to the Home invited appeals at all times, and his favor was sought both at his home and in his office. Fitting eulogies have been uttered over the dead General, but they have failed to express the sentiment that will live in the memory of his soldiers.

No changes have occurred in the roster of officers on duty at the Home since the last report.

The papers accompanying this report are the reports of the governor, the treasurer, and the attending surgeon, already mentioned, together with statements of receipts and expenditures of Home funds, of the permanent fund, of the account of the treasurer with inmate pensioners; statements of the number of inmate pensioners, and of the number of members receiving out-door relief; a statement of the expenses and credits on account of the farm, the garden, and the dairy, and a list of names of men admitted to the Home during the year.

This report and all of the accompanying papers are deemed necessary to be published to comply with the law mentioned in the first part of the report.

I am, sir, very respectfully, your obedient servant,

J. M. SCHOFIELD,
Major General commanding the Army,
President Board of Commissioners.

THE SECRETARY OF WAR.

GOVERNOR'S OFFICE,
UNITED STATES SOLDIERS' HOME,
Washington, D. C., October 18, 1888.

GENTLEMEN: I have the honor to submit my report for the year ending September 30, 1888.

Permanent beneficiaries, September 30, 1887	934
Admitted during the year	236
Re-admitted during the year	65
	— 1,235
Dropped:	
By withdrawal	50
For absence without leave	29
Dismissed	12
Abandoned the Home	11
Died	46
From out-door relief	54
	— 202
Permanent beneficiaries, September 30, 1888	1,033

Temporary inmates :

Present, September 30, 1887	57
Admitted during the year	255
Total temporary beneficiaries	312
Transferred to permanent rolls	153
Dropped	101
Died	7
	<u>261</u>
Remaining temporary inmates	51
Total beneficiaries, September 30, 1888	1,084

Of whom 782 are inmates of the Home, and 302 receive out-door relief at not over \$8 per month. Increase for the year, 93.

Of the 53 deaths reported, 1 died whilst on furlough, 4 in the insane asylum, and 9 were receiving out-door relief.

The number and character of beneficiaries of the Home for the last five years have been as follows :

	1884.	1885.	1886.	1887.	1888.
Pensioners, inmates	250	381	402	481	591
Non-pensioners	263	236	313	249	189
Total inmates	522	617	715	730	782
Outside commutars	190	184	231	261	302
Total beneficiaries	712	801	946	991	1,084

INTERNAL ECONOMY.

The increase in the number of inmates for the year is 52. As the accommodation remains the same as last year, all the rooms are overcrowded and some of the inmates occupy cots in the corridors. Fortunately, the furlough list has been unusually large, and it is hoped that by the end of the year the new mess-hall building will be completed. Even then there will be little room to spare.

The food has been good and well-served, and it is believed that on the occupation of the new kitchen, now nearly ready, there will be still further improvement.

The cost of the Home ration for the past year has been 21½ cents, as against 23½ cents in the two previous years.

The beds, bedding, furniture, and the condition of the dormitories have been all that could be desired, and the police excellent.

The workshops, stables, and out-buildings are generally in good order, as are also the roads and grounds.

The provision for religious services remains as at the date of my last report. There are three chaplains—Catholic, Protestant, and German Lutheran. Services are held every Sunday by each, and the sick in hospital duly attended.

The temperance society continues in excellent condition, under the patronage of the Woman's Christian Temperance Union.

The band is improving in numbers and excellence. All its members, including even the leader, are regular inmates.

LIBRARY AND READING-ROOM

are in flourishing condition. The number of volumes, September 30, 1888, 4,705, an increase since last report of 357. The books are well

selected, in due proportion, from the different branches of literature. Numbers of books issued during the year 18,180, a daily average of 58, showing that the library, besides its numerous visitors, is largely drawn on by the inmates for reading* in their rooms. For the reading-room, which is well attended, there are taken: Daily papers, 12; weekly, 29; pictorial, 10; magazines, 29. The daily average of inmates visiting the reading-room is about 190. There is a reader appointed for the benefit of the blind and illiterate, who is borne on the rolls of extra-duty men.

HOSPITAL.

The report of the surgeon gives full details as to the sick. The number of deaths has been the last year about the usual average—5½ per cent., but the proportion of sick in hospital to the whole number of inmates has been lowered.

The hospital is generally in good order; the wards have been recently repainted. The supplies are good and sufficient. The plumbing arrangements are still defective, as stated in my last report, but are kept in working order by current repairs.

GARDEN, FARM, AND DAIRY.

Full details as to these are given in the report of the treasurer. The profits for the year, after paying all expenses incident to them, are, for the dairy \$3,174.20, and for the farm \$1,609.32. The cost of the flower and fruit garden has been \$1,555.39. The following is a statement of profit and loss for the last five years, from which it will be seen that the aggregate profit to the Home in that period has been \$16,720.69, or an average of \$3,344.14 per annum. The supply of milk has been ample and of the best quality, allowing in summer a large supply for the diet of the sick in hospital and for the older men at the Home, and with a greater supply of perfectly fresh vegetables than could be obtained under contract or by purchase:

	1884.	1885.	1886.	1887.	1888.	Five years.
Profit, dairy.....	\$3,711.42	\$2,604.72	\$3,036.97	\$2,700.28	\$3,174.20	\$15,227.59
Profit, farm.....	230.47	4,912.09	1,769.69	2,403.51	1,609.32	11,325.08
Total profit.....	3,941.89	7,516.81	4,806.66	5,103.79	4,783.52	26,552.67
Loss, garden.....	1,880.46	1,807.77	1,647.99	2,931.37	1,555.39	9,831.98
Net profit.....	2,061.43	5,709.04	3,158.67	2,172.42	3,228.13	16,720.69

PENSIONS AND COMMUTERS.

Reference to the table of beneficiaries in the beginning of this report shows that the proportion of pensioners is steadily increasing, and that they now constitute more than three fourths of the inmates. The passage of the Mexican service-pension bill has swelled this proportion. Quite a number of Mexican pensioners, however, applied for outside commutation, in addition, which was granted; but they are gradually returning to the Home. The number of pensioner inmates receiving from \$12 to \$36 per month is 161. Many of them are comparatively young men of short service, who under the original rules of the Home would not be here, as their pensions would go to the Home funds as long as they remained inmates. Under the present system these men

are greatly injured by being kept here in idleness whilst also enjoying their pensions. A bill is now before the House Military Committee to regulate this matter.

The same table shows that the number of commuters is also steadily increasing, and is now over 300. Commutation is now sometimes claimed as a right, and it is clear that some inmates obtain admission to the Home with no other view than to apply for commutation, and who if refused would withdraw, as they do not need its support. It is therefore respectfully suggested that the rules should be strictly drawn, and commutation granted only in special cases, to service pensioners; to men of long service; or as a relief to the Home when the accommodation is insufficient.

MISCELLANEOUS.

The ordinary expenses of the Home for the past year amounted to \$183,969.09, being very nearly \$172 for each beneficiary. Last year the expenses amounted to \$172,967.09, or nearly \$175 each. These expenses include the cost of keeping the grounds in order, roads in repair, etc., and all other current expenses. The new mess-hall building is approaching completion. It will give us accommodation for about 300 additional men, a large portion of whom now overcrowd the other buildings.

To the officers of the Home—Captain Catlin, deputy-governor; Brevet Major Rittenhouse, treasurer; and Surgeon Byrne, attending surgeon—I am much indebted for the thorough and efficient manner in which they have performed their duties. Sergeant-Major Evans and the non-commissioned officers have maintained excellent discipline, which has been mild but firm. Offenders have been comparatively few, punishments are light, and on the whole as much contentment is found amongst the inmates as could be expected amongst so many men of various ages and characters, for whom little regular employment can be provided.

HENRY J. HUNT,
Brevet Major-General, U. S. Army,
Governor Soldiers' Home.

REPORT OF THE ATTENDING SURGEON.

UNITED STATES SOLDIERS' HOME,
Washington, D. C., September 30, 1888.

SIR: I have the honor to submit the following report in regard to the medical department of the Home for the year ending this day:

	1888.	1887.	1886.	1885.
Number of patients remaining in hospital from preceding year	80	70	85	81
Number of patients admitted to hospital during the year	281	254	260	317
Total number of patients treated in hospital during the year	361	324	345	398
Returned to the Home:				
Cured	116	96	110	.....
Improved	119	93	71	.....
Not improved	19	18	52	.....
Total number of patients returned to the Home	254	207	233	260
Sent to the United States Hospital for the Insane	11	5	6	8
Died in hospital	37	29	30	31
Dead when brought to hospital	2	2	4	4
Remaining in hospital at date of annual report	57	80	70	85

The patients reported as cured were nearly all cases of acute disease. Those reported as not improved were mainly the subjects of chronic and incurable disease.

Of the eleven patients sent to the Hospital for the Insane, three were simply victims of the opium habit:

Age of patients admitted.

	1888.	1887.	1886.	1885.
Between 20 and 30 years	26	27	21	14
Between 30 and 40 years	38	38	49	46
Between 40 and 50 years	72	57	59	72
Between 50 and 60 years	62	83	66	105
Between 60 and 70 years	58	34	39	61
Between 70 and 80 years	20	15	24	16
Between 80 and 90 years	4		2	2
Between 90 and 100 years	1			
Of these patients the age of the youngest was	23	23	23	22
Of these patients the age of the oldest was	93	77	88	85
The average age of the patients admitted was	49.56	48.70	40.66	51.21
Greatest number of patients in hospital at one time	80	82	86	86
Least number of patients in hospital at one time	55	62	64	77
Average number of patients in hospital each day of the year	69	68.50	71.23	83.39

Diseases for which patients were admitted.

	1888.	1887.	1886.	1885.		1888.	1887.	1886.	1885.
Malarial fever	5	7	4	.....	Chronic laryngitis	2	1	1	.....
Acute diarrhoea	12	7	6	7	Pneumonia	1	4	1	2
Chronic diarrhoea	4	4	1	3	Pulmonary oedema	3	2	1	.....
Pyæmia	1			.....	Pulmonary gangrene	1			.....
Primary syphilis	1	2		.....	Acute pleuritis	10	5	9	.....
Constitutional syphilis	1	1	2	.....	Colic	1		2	2
Gonorrhoea	3	1	5	1	Constipation	10	4	3	1
Urethral stricture	2	1		.....	Cholera morbus	4			1
Inebriation	22	18	19	109	Dyspepsia	6	3	2	6
Delirium tremens	5	3	16	3	Peritonitis	1			.....
Opium habit	3	1	2	1	Fistula in ano	1	2		1
Acute rheumatism	2		4	12	Piles	3	4	3	1
Subacute rheumatism	3	4		.....	Inguinal hernia	2	2	1	1
Chronic rheumatism	5	10	9	9	Cirrhosis of liver	1			2
Cancer	3	1	1	1	Biliary calculi	1			.....
Abdominal tumor	1			.....	Enlarged spleen	1			.....
Sarcocoele	1			.....	Bright's disease	8	1		1
Consumption	21	29	23	13	Chronic cystitis	4		1	.....
Tape-worm	1			.....	Orchitis	2			.....
Apoplexy	5	4	1	1	Hydrocele	1	2		.....
Insanity	11	9	7	4	Varicocele	1	2		1
Brain softening	1		1	.....	Caries	4	2	2	.....
Neuralgia	6	7	4	6	Acute synovitis	1		1	.....
Hemiplegia	3	6	1	.....	Ankylosis	2	2		.....
Spinal congestion	1			.....	Inflamed bunion	1			.....
Partial paralysis	1			.....	Abscess	5	2	4	.....
Locomotor ataxia	4	3	12	5	Boil	2	3		.....
Senile debility	10	6	10	4	Carbuncle	2	2	1	2
Myopia	1			.....	Ulcer	7	9	7	2
Optic neuritis	1			.....	Corns	1			.....
Posterior synechia, double	1			.....	Herpes zoster	1	1		.....
Episcleritis	1			.....	Prurigo	1			.....
Nystagmus	1			.....	Contusion	2	4	2	7
Keratitis, syphilitic	1			.....	Sprain	4	2	1	5
Chronic otitis media	1		1	.....	Frost-bite, old	1			.....
Organic disease of heart	7	9	12	9	Fractures	1	6	3	1
Aneurism of aorta	7	2	6	.....	Incised wound	1	1		1
Angina pectoris	2	1		.....	Lacerated wound	1	1	1	2
Varicose veins	1		1	2	Rhna poisoning	3			1
Asthma	5	6	5	2	Suicide	1			.....
Post-nasal catarrh	1		1	.....	Other diseases		37	52	78
Acute bronchial catarrh	6	5		.....	Total	281	254	260	317
Chronic bronchitis	2	2	8	6					

This list exhibits only the most prominent disease complained of by each patient at the time of his admission to the hospital. Many of these patients were at the same time subjects of other diseases, generally chronic and incurable,

The following surgical operations were performed in Barnes Hospital during the year, viz: Castration (for sarcocele), 2 cases; paracentesis abdominis, 3 cases; 2-7-82, 1 case.

Causes of death.

Pyæmia	1	Brain softening	1
Septicæmia	1	Chronic pericarditis	1
Cancer of rectum	1	Organic disease of heart	1
Consumption	10	Heart failure	1
Congestion of lungs	1	Acute gastritis	1
Bacillary pneumonia	1	Gastric ulcer	1
Pulmonary gangrene	1	Peritonitis	1
Pleurisy with effusion	1	Cirrhosis of liver	1
Apoplexy	4	Bright's disease	1
Cerebral meningitis	1	Incised wound of throat (suicidal)	1

The age of the oldest of these decedents was 90 years. The youngest was 29 years of age. The average age of all the decedents was 56.23 years.

Nativity of decedents.

Countries.	No.	Countries.	No.
Ireland	16	England	1
Germany	11	Poland	1
United States	10		

Of these decedents two were dead and four were moribund when brought to hospital. At least six of these deaths were caused or hastened by excessive indulgence on the part of the decedents in alcoholic liquors. The daily average number of inmates present at the Home for the year ending September 30, 1888, was —; for 1887, 651; for 1886, 626.

Proportion of deaths to 100 inmates per annum.

Year.	Per cent.	Year.	Per cent.	Year.	Per cent.
1888	5.76	1886	5.43	1884	5.47
1887	4.76	1885	6.12	1883	7.03

Average proportion for the last six years, 5.75+.

From this report it will be seen that for this year there is an increase in the proportion of deaths to inmates as compared with last year, yet the general average for the last six years is not exceeded.

Number of prescriptions compounded during the year	4,012
Number of renewals of same	4,799
Number of inmates treated at sick call	4,712
Number of out-patients (connected with the Home) treated	166

In the following table will be found a statement of the cost of maintaining the medical department of the Home during the last four years. In some instances the figures given are merely an approximation, but it is not believed that the exact sums, if obtainable, would materially alter the result.

Cost of medical department, United States Soldiers' Home, for the year ending September 30, 1888.

[Figures taken from records of treasurer's office.]

	1888.	1887.	1886.	1885.
Average number of men, including attendants.....	96.33	97.50	100.23	111.47
Subsistence.....	\$8,674.24	\$9,443.10	\$10,128.23	\$11,158.19
Subsistence, inmates at United States Government Insane Asylum.....	3,111.43	1,941.42	2,008.57	1,241.43
Cost of medicines.....	779.03	970.48	1,051.61	1,570.72
Attendants.....	3,772.26	4,113.00	3,964.35	3,592.95
Ice.....	231.80	121.96½	229.26	372.80
Fuel.....	2,777.53	1,243.69	1,742.63	1,494.10
Gas.....	712.25	621.79	750.25	688.75
Laundry.....	769.97	695.70	691.14	767.44
Stationery.....	73.83	88.37	48.00	189.21
Teeth (\$60), spectacles (\$49.50).....	109.50	133.00	227.47	98.60
Coffins.....	227.76	124.62	141.02	148.15
Bedding.....	789.55	304.80	283.60	89.35
Newspapers.....	88.50	91.55	132.00	126.00
Repairs (approximated).....	708.00	480.00	487.46	428.76
Forage for ambulance horses (approximated).....	206.24	182.96	120.75	168.33
Trusses.....	18.00	32.00	67.00	.....
Instruments and appliances.....	17.00	46.05	160.00	.....
Books.....	15.00	.....	.....	.....
Miscellaneous.....	415.10	238.96	258.00	422.78
Total.....	22,496.49	20,873.45½	22,594.06	24,101.05
Cost per man per day.....cents..	63.52	58.65	61.76	59.24

The plumbing of the hospital still remains in the unsatisfactory condition reported last year. The supply of food, medicines, and clothing continues to be all that could reasonably be desired, both as to quantity and quality.

During the summer the reduced number of hospital patients enabled me to vacate one of the six wards, and advantage was taken of this to wash and repaint the walls of all the wards, one at a time.

Very respectfully, your obedient servant,

C. C. BYRNE,

Major and Surgeon U. S. Army, Attending Surgeon.

The GOVERNOR OF THE HOME.

REPORT OF THE TREASURER.

TREASURER'S OFFICE, UNITED STATES SOLDIERS' HOME,
Washington, D. C., October 18, 1888.

COLONEL: I have the honor to inclose herewith a statement of all receipts and expenditures pertaining to the Soldiers' Home fund, whether drawn for "current use," or remaining in the permanent fund of the United States Treasury, for the year ending September 30, 1888; all receipts and disbursements of moneys belonging to pensioners who have been inmates of the Home during the year, and reports of receipts and expenditures on account of the garden, farm, and dairy.

The department of the Home known as the garden has the care of the ornamentation of the grounds, flowers, and fruit; that known as the farm has the care of the grass land and vegetable garden. Considerable work is done by these departments in caring for the lawns, trees, etc., which yield no profit.

The buildings, roads, gutters, culverts, bridges, and fences are in good order.

The new steam-heating apparatus used for the first time last winter worked satisfactorily.

Frank Baldwin, the contractor for constructing the large stone addition to the main building, failed to complete the work by May 15, 1888, as provided for in his contract. The time was extended to October 15, but the building is not yet finished, and probably will not be until Christmas.

The new dining-room and kitchen, with a new steam-cooking apparatus, will be ready for use in about thirty days.

In January last, \$31,000 of Missouri 6 per cent. coupon bonds were sold, and the proceeds, \$31,000, were deposited to the credit of the "permanent fund" in the United States Treasury.

I am, colonel, very respectfully, your obedient servant.

B. B. RITTENHOUSE,

Brevet Major, U. S. Army, Secretary and Treasurer.

Col. HENRY J. HUNT,

Governor United States Soldiers' Home, Washington, D. C.

Annual report of receipts and expenditures, etc.—Continued

RECAPITULATION.

RECEIPTS.	
Balance on hand September 30, 1887.....	\$55, 179. 31
From the United States Treasurer upon a resolution of the Board of Commissioners, and approved by the Secretary of War.....	259, 860. 00
Interest on bonds and securities held as investments, and on the permanent fund.....	50, 276. 47
Effects of deceased inmates, subject to the demand of legal heirs.....	623. 64
Miscellaneous sources.....	1, 987. 33
From the sale of Missouri 6 per cent. coupon bonds.....	31, 000. 00
Total amount of receipts.....	396, 926. 75
Total amount of expenditures.....	*343, 270. 64
Balance on hand September 30, 1888.....	55, 656. 11
EXPENDITURES.	
Furniture for officers' quarters.....	118. 72
Compensation to the secretary and treasurer and clerk of Board of Commissioners.....	2, 100. 00
Transportation furnished inmates en route to the Home.....	619. 64
Fuel.....	14, 741. 94
Expenses of the hospital for medicines, medical stores, spectacles, false teeth, etc., and material for coffins.....	1, 600. 91
Expenses of the hospital, mess and kitchen utensils, pay of clerical assistant, and all contingent expenses.....	2, 104. 92
Refunded to claimants effects of deceased soldiers.....	1, 031. 92
Refunded to claimants effects of deceased inmates.....	144. 00
Subsistence stores, including special diet, stimulants for the sick, and ice.....	47, 595. 58
Clothing.....	14, 177. 05
Bedding for inmates, beadsteads, blankets, upholstering material, etc.....	1, 827. 84
Farm and garden utensils, seeds, guano, manure, etc., cultivation of garden, ornamentation of grounds, and pay of farm, garden, dairy, and other employes.....	26, 727. 72
Mess and kitchen utensils and other articles, except bedding, for Home.....	610. 16
Material and labor for general repairs of buildings, repairs to roads and fences, repair and purchase of harness and vehicles, and mechanical and other tools.....	5, 898. 54
Forage and medicine for animals, articles used in the stables, straw for bedding for inmates.....	2, 785. 54
Expenses of the library, governor's and treasurer's offices, postage, post-office box rent, stationery, etc., for commissioners' office, freight, telegrams, amusements.....	2, 460. 17
Incidental expenses, rent of safe, telephone, hack hire, advertising, traveling expenses, professional services, expenses of chapel.....	982. 18
Religious services.....	1, 740. 00
Laundry work.....	4, 108. 46
Extra-duty pay and monthly allowance to inmates.....	21, 361. 23
Commutation to members of the Home residing outside.....	23, 672. 73
Gas.....	3, 293. 38
Board and medical treatment of members of the Home in Government Hospital for Insane.....	2, 111. 43
Funeral expenses of members of the Home residing outside.....	155. 00
New buildings.....	127, 688. 22
Permanent improvements, new fences, wells, bridges, and paving.....	633. 33
Deposited in United States Treasury to the credit of the permanent fund, realized by sale of Missouri 6 per cent. coupon bonds.....	31, 000. 00
Total expenditures.....	343, 270. 64

Comparative statement of money received and disbursed on account of the United States Soldiers' Home, District of Columbia, for two years, from October 1, 1886, to September 30, 1888.

Received from October 1, 1886, to September 30, 1887.....	\$1, 286, 345. 54
Of this amount \$1,022,330.05 was realized from the sale of United States bonds and Missouri 6 per cent. coupon bonds, and sale of Harrodsburg property, as shown in annual report of September 30, 1887.	
Received from October 1, 1887, to September 30, 1888.....	398, 926. 75
Of this amount \$31,000 was realized from the sale of Missouri 6 per cent. coupon bonds, and redeposited to the credit of the permanent fund.	
Expended from October 1, 1886, to September 30, 1887.....	1, 255, 532. 69
Of this amount \$1,022,330.05 was redeposited as above mentioned.	
Expended from October 1, 1887, to September 30, 1888.....	343, 270. 64
Of this last amount \$31,000 was redeposited to the credit of the permanent fund, being realized from sale of Missouri 6 per cent. bonds, leaving the actual expenditures for the Home \$312,270.64 for the year ending September 30, 1888.	
The expenditures for the same time for new buildings and permanent improvements were.....	128, 301. 55
Net running expense of the Home for the year.....	183, 969. 09
	312, 270. 64

*\$31,000 of the amount appearing as expenditures is the amount realized on account of the sale of \$31,000 Missouri 6 per cent. coupon bonds, which leave the actual expenditures for the Home, \$312,270.64.

Securities consisting of Young Men's Christian Association stock amounting to \$62,500 are deposited with the National Safe Deposit Company, Washington, D. C., and do not appear in the accounts.

Average number of inmates for the year, 676½.

Average cost of rations per month, including milk, vegetables, and fruit raised on the Home grounds, \$6.42.

Average cost of rations per day, 21½ cents.

I certify that the foregoing statement is correct.

B. F. RITTENHOUSE,

Brevet Major, U. S. Army, Secretary and Treasurer.

Farm account, U. S. Soldiers' Home, District of Columbia, October 1, 1887, to September 30, 1888, consolidated.

Dr.		Cr.	
To labor, forage, fertilizers, implements, and repairs	\$9,941.46	By 17½ bushels peas	\$17.50
By balance to credit farm	1,609.32	131½ bushels carrots	124.65
	11,550.78	6 bunches carrots .....	.30
		3½ bushels okra	3.50
		2,881 bunches radishes	69.76
		13 bunches peppergrass .....	.85
		1,151 bunches parsley	61.17
		9½ bushels onions	14.41
		4,126 bunches onions, green	77.69
		3 bunches savory .....	.15
		32 bushels peppers	18.00
		26½ bushels salsify	49.06
		2,336 bunches rhubarb	30.09
		51 bunches peppers, small	2.55
		3 bushels martynia	2.00
		329 bushels parsnips	289.50
		1,442 pounds horse-radish	86.58
		2,851 stalks celery	162.47
		4,665 heads lettuce	90.32
		50 pumpkins	5.00
		251 bushels kale	125.50
		1,781 bunches asparagus	178.10
		Hauling and services of hands on other than farm work	346.00
		Total	11,550.78
Cr.			
By 3,833 bushels potatoes	2,757.85		
63 bushels potatoes, small	25.20		
19 bushels potatoes, sweet	15.73		
1,964½ bushels turnips	806.05		
2,002½ bushels beets	935.00		
213 bunches beets	9.97		
4,738 heads cabbage	192.54		
250 tons hay	4,327.50		
1,747 cantaloupes	73.82		
98 water-melons	6.86		
494½ dozen ears green corn	47.88		
245 squashes	19.80		
4 tons winter squash	106.20		
262 egg-plants	8.63		
130 cauliflower	28.60		
453 bushels spinach	156.70		
843½ bushels tomatoes	197.00		
101 bushels cucumbers	51.10		
38½ bushels beans, snap and Lima	29.20		

Estimate of vegetables in the ground, Soldiers' Home farm, September 30, 1888.

300 bushels table beets, at 50 cents	\$150.00	600 bushels potatoes, at 75 cents	\$450.00
3,700 bushels cow beets, at 30 cents	1,110.00	8 tons winter squash, at \$25	200.00
400 bushels parsnips, at \$1	400.00	4,000 heads cabbage, at 6 cents	240.00
200 bushels carrots, at 75 cents	150.00	3,000 bunches radishes, at 2 cents	60.00
75 bushels salsify, at \$1	75.00	4,500 stalks celery, at 4 cents	180.00
15 bushels okra, at \$1	15.00	4,000 ears sweet corn, at 1 cent	40.00
300 bushels turnips, at 50 cents	150.00	4,500 pounds horse-radish, at 7 cents	315.00
80 bushels sweet potatoes, at 75 cents	60.00	400 bunches sage, at 8 cents	32.00
300 bushels spinach, at 50 cents	150.00	200 bunches savory, at 8 cents	16.00
25 bushels large peppers, at 75 cents	18.75		
10 bushels small peppers, at \$1	10.00		
50 bushels snap beans, at 35 cents	17.50		
			3,839.25

Garden account, United States Soldiers' Home, District of Columbia, October 1, 1887, to September 30, 1888, consolidated.

Dr.		Cr.	
To labor, fertilizers, seeds, tools, and implements	\$4,758.70	By 1,377 quarts strawberries	\$137.70
		207 quarts raspberries	20.70
		1,393 quarts blackberries	139.14
		94½ bushels pears	141.87
		840 pounds grapes	52.50
		50 cords wood (cut and stored)	275.00
		To balance to debit of the garden	1,555.39
			4,758.70
Cr.			
By 19,972 plants raised in greenhouse	2,388.40		
548 quarts cherries	38.36		
108 quarts currants	8.64		
30 quarts gooseberries	1.50		

Dairy account, United States Soldiers' Home, District of Columbia, October 1, 1887, to September 30, 1888.

Dr.		Cr.	
To labor, forage, rations, tools, repairs, etc.....	\$5, 824. 39	By 27,296½ gallons milk.....	\$8, 189. 44
By balance to credit of the dairy.....	2, 174. 20	16 head stock sold.....	470. 52
		38 head calves sold.....	278. 63
		1,460 loads manure (to the farm).....	730. 09
		service of bull.....	15. 09
		increase in value of 7 heifers.....	170. 00
		increase in value of 7 calves.....	115. 00
		value of 2 calves.....	30. 00
	<u>9, 998. 59</u>		<u>9, 998. 59</u>

The dairy herd, on September 30, 1888, consisted of 40 cows, 15 heifers, 7 calves (5 suckling), 2 bulls.

The Treasurer of the United States Soldiers' Home, District of Columbia, in account with the inmate pensioners for moneys received under section 4, act approved March 3, 1883, and deposited with the Treasurer of the United States.

Date.	Moneys received.	Amount.	Date.	Moneys disbursed.	Amount.
1887.			1887.		
Oct. 1	To balance on hand September 30, 1887.	\$22, 726. 68	Oct. 31	By pay-roll of pensioners for October.	\$1, 065. 20
Oct. 31	To S. L. Willson's checks ..	1, 313. 19	Nov. 18	By amount paid Fred Moody, pensioner.	17. 60
Nov. 30	do	591. 18	Nov. 29	By amount paid estate of James Halpin, pensioner.	60. 00
Dec. 31	do	12, 877. 34	Nov. 30	By amount paid Henry Schwartz, pensioner.	6. 00
1888.			Nov. 30	By pay-roll of pensioners for November.	367. 66
Jan. 31	do	425. 73	Dec. 10	By amount paid John Fitzgerald, pensioner.	36. 00
Feb. 29	do	270. 33	Dec. 21	By amount paid S. L. Willson, pension agent.	12. 00
Mar. 31	do	13, 306. 77	Dec. 31	By pay-roll of pensioners for December.	8, 552. 70
Apr. 30	do	2, 284. 66	1888.		
May 31	do	1, 657. 93	Jan. 31	By pay-roll of pensioners for January.	826. 06
June 30	do	12, 948. 48	Feb. 17	By amount paid Joseph Muller, pensioner.	10. 00
July 31	do	635. 86	Feb. 29	By pay-roll of pensioners for February.	230. 20
Aug. 31	do	872. 40	Mar. 5	By amount paid John Fitzgerald, pensioner.	36. 00
Sept. 30	do	11, 946. 35	Mar. 10	By amount paid Daniel F. Banks, pensioner.	24. 00
			Mar. 22	By amount paid Julius Steinmayer, pensioner.	10. 00
			Mar. 27	By amount paid Henry King, pensioner.	436. 00
			Mar. 31	By pay-roll of pensioners for March.	8, 029. 85
			Apr. 11	By amount paid Francis Howard, pensioner.	105. 33
			Apr. 30	By pay-roll of pensioners for April.	1, 639. 66
			May 31	By pay-roll of pensioners for May.	3, 336. 00
			June 1	By amount paid James Brogan, pensioner.	1. 33
			June 27	By amount paid estate of M. Hanlon, deceased.	46. 00
			June 28	By amount paid Richard Shorten, pensioner.	100. 00
			June 29	By amount paid George W. Odell, pensioner.	50. 00
			June 30	By pay-roll of pensioners for June.	10, 960. 73
			July 10	By amount paid estate of G. A. Antony.	52. 00
			July 23	By amount paid Stephen H. Brown, pensioner.	129. 33
			July 26	By amount paid estate of Conrad Bender.	466. 00

The Treasurer of the United States Soldiers' Home, District of Columbia, etc.—Continued.

Date.	Moneys received.	Amount.	Date.	Moneys disbursed.	Amount.
1888.			1888.		
			July 31	By pay-roll of pensioners for July.	\$1,478.00
			Aug. 31	By pay-roll of pensioners for August.	597.90
			Sept. 15	By amount paid Henry Pond, pensioner.	134.53
			Sept. 15	By amount paid Joseph M. Griffith, pensioner.	28.00
			Sept. 21	By amount paid S. L. Willson, pension agent.	36.00
			Sept. 23	By amount paid Henry A. Erb, pensioner.	103.00
			Sept. 30	By pay-roll of pensioners for September.	9,180.01
			Sept. 30	By amount due deceased pensioners and transferred to the Home fund under section 4, act of March 3, 1883.	542.73
			Sept. 30	By balance on hand, deposited in United States Treasury.	33,150.48
	Total	\$81,876.90		Total	81,876.90

I certify on honor that this account is correct and just.

B. F. RITTENHOUSE,
Brevet Major, U. S. Army, Secretary and Treasurer.

Statement of the Soldiers' Home permanent fund account, from October 1, 1887, to September 30, 1888.

Date.		Partial amounts.	Dr.	Cr.
1887.				
Oct. 1	Balance			\$1,007,597.93
Oct. 15	Amount of deposits	\$17,267.00		
Oct. 29	do	13,821.42		
Nov. 28	do	15,707.93		
Dec. 15	do	39,394.99		
Dec. 29	do	10,342.93		
1888.				
Jan. 17	do	17,860.57		
Jan. 21	Amount of deposits, sale of bonds	31,000.00		
Jan. 28	Amount of deposits	2,669.50		
Feb. 13	do	10,088.17		
Feb. 27	do	27,068.87		
Mar. 15	do	26,196.61		
Mar. 27	do	9,091.93		
Apr. 17	do	7,912.27		
Apr. 28	do	35,716.99		
May 15	do	21,949.59		
May 29	do	1,579.65		
June 16	do	20,158.60		
June 27	do	21,541.71		
July 17	do	55,648.33		
July 30	do	7,558.40		
Sept. 24	do	53,585.42		
				446,160.93
1887.				
Oct. 25	Less amounts paid from permanent fund	2,600.00		
Nov. 28	do	58,900.00		
Dec. 17	do	19,000.00		
1888.				
Feb. 10	do	55,000.00		
Mar. 24	do	18,150.00		
Apr. 19	do	19,500.00		
May 24	do	11,800.00		
July 30	do	22,110.00		
Sept. 3	do	24,650.00		
Sept. 21	do	28,150.00		
			\$259,860.00	
Sept. 30	Balance		1,793,898.86	
			2,053,758.86	2,053,758.86

Statement of the Soldiers' Home interest account from October 1, 1887, to September 30, 1888.

	Partial amounts.	Dr.	Cr.
Balance, Oct. 1, 1887			\$12, 028. 56
Interest on balance, \$1,607,507.92, Oct. 1 to Dec. 31, 1887	\$12, 152. 44		
Interest on deposits, Oct. 15 to Dec. 31, 1887	110. 68		
Interest on deposits, Oct. 29 to Dec. 31, 1887	72. 70		
Interest on deposits, Nov. 28 to Dec. 31, 1887	43. 95		
Interest on deposits, Dec. 15 to Dec. 31, 1887	54. 96		
Interest on deposits, Dec. 29 to Dec. 31, 1887	2. 53		
Interest on balance, \$1,622,632.26, Jan. 1 to Mar. 31, 1888	12, 144. 77		12, 438. 26
Interest on deposits, Jan. 17 to Mar. 31, 1888	110. 11		
Interest on deposits, Jan. 28 to Mar. 31, 1888	14. 64		
Interest on deposits, Feb. 13 to Mar. 31, 1888	39. 80		
Interest on deposits, Feb. 27 to Mar. 31, 1888	75. 65		
Interest on deposits, Mar. 15 to Mar. 31, 1888	36. 54		
Interest on deposits, Mar. 27 to Mar. 31, 1888	3. 73		
Interest on balance, \$1,643,457.91, Apr. 1 to June 30, 1888	12, 293. 06		12, 434. 64
Interest on deposits, Jan. 21 to June 30, 1888	412. 77		
Interest on deposits, Apr. 17 to June 30, 1888	48. 77		
Interest on deposits, Apr. 28 to June 30, 1888	187. 87		
Interest on deposits, May 15 to June 30, 1888	84. 84		
Interest on deposits, May 29 to June 30, 1888	4. 28		
Interest on deposits, June 16 to June 30, 1888	24. 89		
Interest on deposits, June 27 to June 30, 1888	7. 10		
Interest on balance, \$1,752,016.71, July 1 to Sept. 30, 1888	13, 245. 24		13, 063. 58
Interest on deposits, July 17 to Sept. 30, 1888	347. 52		
Interest on deposits, July 30 to Sept. 30, 1888	30. 15		
Interest on deposits, Sept. 25 to Sept. 30, 1888	30. 81		
Less interest paid:			13, 662. 72
Fourth quarter, 1887	12, 028. 56		
First quarter, 1888	12, 226. 03		
Second quarter, 1888	12, 182. 16		
Third quarter, 1888	12, 909. 72		
Less interest on principal paid:		\$19, 346. 47	
Fourth quarter, 1887	212. 23		
First quarter, 1888	242. 48		
Second quarter, 1888	153. 86		
Third quarter, 1888	194. 29		
Balance Sept. 30, 1888		802. 86	
		13, 468. 43	
		63, 617. 76	63, 617. 76

Annual report of the number of inmate pensioners in the United States Soldiers' Home, rates of pension, etc., September 30, 1888.

	Number.		Number.
Receiving:		Receiving:	
\$2 per month	22	\$13 per month	1
3 per month	4	14 per month	19
4 per month	80	16 per month	25
5 per month	1	18 per month	7
6 per month	81	24 per month	20
6.25 per month	1	30 per month	16
8 per month	300	36 per month	2
9 per month	3	Total	696
10 per month	44		
12 per month	64		

Present in the Home:	
Pensioners whose money is drawn by the treasurer	430
Assigned to relatives	26
Total present	456
Absent from the Home:	
On furlough	110
On suspension	5
On out-door relief	117
In Government Hospital for the Insane	8
Total absent	240
Total present and absent	696

Present and absent September 30, 1887.....	537
Admitted or readmitted during the year.....	114
New certificates received by inmates during the year.....	50
	173
Alterations:	
Net gain.....	25
Loss by discharge during the year.....	120
Loss by death during the year.....	28
	173
Description of certificate:	
Army invalid.....	604
Mexican war.....	90
Navy pensioners.....	2
	696

Annual report of members of the Home receiving out-door relief, rates, etc.

Number receiving \$8 per month.....	237
Number receiving \$6 per month.....	12
Number receiving \$5 per month.....	1
Number receiving \$4 per month.....	30
Number receiving \$2 per month.....	22
Total number receiving out-door relief.....	302
Number on out-door relief September 30, 1887.....	261
Gain.....	41

Of the number receiving out-door relief September 30, 1888, 117 are pensioners, as follows: 12 at \$2 per month; 1 at \$3 per month; 30 at \$4 per month; 22 at \$6 per month; 47 at \$8 per month (40 Mexican war survivors (7 served over twenty-five years); 3 at \$10 per month (served over twenty-five years); 1 at \$12 per month (served over twenty-five years); 1 at \$24 per month (served over twenty-five years), making 117 pensioners, and 1 retired soldier (118), and 184 who are non-pensioners. Twenty-six who are non-pensioners served over twenty-five years.

I certify that the foregoing reports are correct.

B. F. RITTENHOUSE.

Brevet Major, U. S. Army, Secretary and Treasurer.

List of names, etc., of men admitted to the benefits of the Soldiers' Home during the year ending September 30, 1888.

[Those who have served twenty or more years are entitled by length of service; all others by disability.]

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
							1887.
1	Bernard Cosgrove.....	B.....	Second Cavalry.....	3	5	26	Oct. 4
2	Peter Held.....	D.....	First Infantry.....	16	7	48	Oct. 13
3	Samuel C. Foreman.....	B.....	Seventeenth Infantry.....	3	3	28	Oct. 21
4	William Barry.....	K.....	Second Cavalry.....	16	5	38	Oct. 23
5	James Lloyd.....	D.....	Twenty-second Infantry.....	18	1	56	Oct. 23
6	James Kearney.....	G.....	First Artillery.....	21	.....	49	Oct. 29
7	Eugene Navarra.....	H.....	Seventh Infantry.....	20	9	49	Oct. 29
8	Adam Lawrence.....	B.....	Sixth Cavalry.....	1	7	24	Oct. 29
9	Charles Williams.....	.....	Ordnance.....	17	.....	39	Oct. 31
10	Owen Golden.....	L.....	Third Cavalry.....	20	9	46	Oct. 31
11	Clarence Thornton.....	F.....	First Artillery.....	26	2	47	Oct. 31
12	Joseph Muller.....	D.....	Second Artillery.....	8	11	37	Oct. 31
13	Frederick Geisel.....	M.....	Third Artillery.....	11	11	37	Oct. 31
14	Adolph Grossman.....	F.....	Fourth Artillery.....	15	5	40	Oct. 31
15	Charles Fortanior.....	C.....	Second Infantry.....	3	10	25	Oct. 31
16	James Conroy.....	A.....	Fifth Infantry.....	11	4	32	Oct. 31
17	William J. Taylor.....	D.....	do.....	14	6	38	Oct. 31
18	John Morrow.....	F.....	Eighth Infantry.....	4	11	40	Oct. 31
19	John Muir.....	E.....	Ninth Infantry.....	21	11	56	Oct. 31
20	Daniel Webster.....	D.....	Eleventh Infantry.....	8	1	48	Oct. 31
21	Jerome Foley.....	E.....	Fourteenth Infantry.....	19	2	43	Oct. 31
22	Otto Broderman.....	F.....	Third Cavalry.....	15	9	40	Oct. 31
23	James H. Hazen.....	L.....	Fourth Cavalry.....	9	.....	34	Oct. 31
24	Johannes Wolf.....	Pand.....	Sixth Cavalry.....	17	2	40	Oct. 31
25	E. S. Rodgers.....	G.....	Sixth Infantry.....	2	.....	39	Oct. 31

*Died since admission.

List of names, etc., of men admitted to the benefits of the Soldiers' Home during the year ending September 30, 1888—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
							1887.
26	Samuel McClane	K	Sixth Cavalry	4	6	43	Oct. 31
27	Joseph Gordon	G	Fourth Infantry	24	5	45	Nov. 18
28	George W. Wood		General service	3		48	Nov. 19
29	Matthew Quinn	F	First Infantry	19	10	48	Nov. 19
30	Reinhard Diebel	L	Third Artillery	11	6	38	Nov. 19
31	Neil McFarland	C	First Infantry	17	2	42	Nov. 29
32	James Morrissey	F	Eighteenth Infantry	20	11	42	Dec. 5
33	John McGuinnis	E	Ninth Infantry	20	10	49	Dec. 5
34	Theodore Wilda		General service	20	8	52	Dec. 6
35	Charles Lane	C	Engineers	21	6	49	Dec. 11
36	Andrew F. Vance	B	Fifteenth Infantry	1	4	30	Dec. 12
37	Waldo Bayard	K	Nineteenth Infantry	8		40	Dec. 13
38	Percy N. Hall	Band	Sixth Infantry	2	3	21	Dec. 15
39	Thomas G. Brown	Band	Fourth Infantry	6	7	56	Dec. 17
40	Edward Burns	K	Sixteenth Infantry	21		55	Dec. 24
41	Christian Neison	B	Seventh Cavalry	1	1	36	Dec. 27
42	William H. Briggs	L	First Artillery	2	11	26	Dec. 27
43	Edward King	A	Second Cavalry	1	11	30	Dec. 27
44	Joseph J. McLaughlin	K	Fourth Artillery	2	8	38	Dec. 27
45	William Fields	E	Twenty-second Infantry	10	5	34	Dec. 27
46	John E. Bullard	I	Fourteenth Infantry	18	10	50	Dec. 27
47	John Judget	M	Fourth Artillery	30	1	54	Dec. 27
48	Thomas Walker	C	Third Cavalry	21	6	60	Dec. 27
49	Louis Hutzler	B	First Infantry	6	3	31	Dec. 27
50	James Kenyon		General service	10	11	45	Dec. 27
51	Lawrence Grubel	C	Fourteenth Infantry	8	10	31	Dec. 27
52	Godfrey Koenig	K	First Cavalry	22		44	Dec. 27
53	Patrick Sheehan	A	Third Infantry	1	9	25	Dec. 27
54	Patrick Roche	H	Nineteenth Infantry	3	7	26	Dec. 27
55	John Kalbfel	Band	Thirteenth Infantry	20		45	Dec. 30
							1888.
56	John W. Andre	I	do.	4	9	28	Jan. 3
57	Jeremiah Carey	H	do.	22	8	51	Jan. 3
58	William Morrissey	K	Fourth Cavalry	19	3	56	Jan. 10
59	George Holtzinger	H	Tenth Cavalry	3	5	42	Jan. 11
60	Sanders Wooten	A	Twenty-fifth Infantry	3	3	39	Jan. 18
61	William Moran	H	Seventh Infantry	21	1	40	Jan. 20
62	William Austin	L	Third Cavalry	8	7	40	Jan. 21
63	James Gallagher	D	First Artillery	12	5	39	Jan. 23
64	John O'Neill	K	Seventh Cavalry	13	7	39	Jan. 23
65	George Williams	H	Twenty-fifth Infantry	19	8	41	Jan. 23
66	Beverly Jones	M	Ninth Cavalry	19	8	40	Jan. 23
67	Philip Wheeler	H	Tenth Infantry	25	3	49	Jan. 23
68	Herman J. Fisher	D	Second Infantry	13	11	47	Jan. 23
69	John Harrington	F	Seventh Cavalry	8	3	35	Jan. 23
70	Christopher McGuire	I	Thirteenth Infantry	24		57	Jan. 23
71	Charles Connor	I	Fifteenth Infantry	3	7	26	Jan. 23
72	Louis Moreau	Band	Fifth Cavalry	2	8	31	Jan. 23
73	Harry M. Waits	H	Seventeenth Infantry	4	1	26	Jan. 23
74	Henry Steffenhagen		Ordnance	23		54	Jan. 23
75	Paul A. Yax		General service	13	11	38	Jan. 23
76	Henry Meyers	M	Third Artillery	12	9	39	Jan. 23
77	Joseph Huber	B	Fourth Cavalry	3	8	28	Jan. 24
78	William White	I	Sixteenth Infantry	20	1	45	Jan. 28
79	Robert Stewart	A	Seventh Infantry	20		50	Jan. 28
80	Kasper Nuschala	I	Ninth Infantry		10	22	Feb. 6
81	John V. Whiteford	I	Second Artillery	25	2	46	Feb. 20
82	Wallace Thompson	I	Twenty-fourth Infantry	13	2	36	Feb. 20
83	Thomas Quilty	H	Third Infantry	10	4	41	Feb. 20
84	Gebhart L. Blucher	II	Second Artillery	6	4	41	Feb. 20
85	William Link	B	Eighth Infantry	20	0	44	Feb. 30
86	Carl Von Allmen	E	Thirteenth Infantry	2	6	25	Feb. 30
87	Edward Garlick	G	Seventh Cavalry	19	7	43	Feb. 30
88	Patrick Gallagher	I	First Artillery	22	0	50	Feb. 30
89	Frank Burrell	G	Twenty-third Infantry	19	4	41	Feb. 30
90	Charles H. Morebiser	D	Sixth Cavalry	9	9	34	Feb. 24
91	Francis S. Berry		Ordnance	23	9	44	Feb. 24
92	Christian F. Schmidt	B	Twelfth Infantry	21	4	48	Mar. 1
93	James J. Costello	A	First Artillery	16	5	39	Mar. 8
94	James D. Kilpatrick	D	Nineteenth Infantry	1	11	35	Mar. 13
95	John J. Reddington	D	Sixteenth Infantry	4	9	26	Mar. 13
96	John Lineham	C	Thirteenth Infantry	8	1	53	Mar. 13
97	Samuel M. Bronenstahl	G	Fifth Infantry	23	1	49	Mar. 19

* Died since admission.

† Retired.

List of names, etc., of men admitted to the benefits of the Soldiers' Home during the year ending September 30, 1888—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
98	John Agan.....	C	First Infantry.....	21		53	1888.
99	Richard W. Spain.....	C	General service.....	25	2	73	Mar. 19
100	Julian Zehammer.....	E	Fourth Artillery.....	21	2	50	Mar. 19
101	Thomas Slattery.....	C	Third Cavalry.....	4	11	42	Mar. 19
102	John J. Bursch.....	C	Third Artillery.....	4	2	29	Mar. 19
103	William S. Harding.....	K	Fifth Cavalry.....	5		50	Mar. 19
104	Thomas Healy.....	F	First Artillery.....	21		44	Mar. 19
105	Patrick Kelly.....	A	Second Infantry.....	7	9	34	Mar. 19
106	Samuel McGrum.....	G	do.....	12	2	56	Mar. 19
107	Everhard Weller.....	A	First New York Volunteers.....	1	7	69	Mar. 19
108	Francis M. Maple.....	C	Eighteenth Infantry.....	2		50	Mar. 19
109	Thomas Hurley.....	E	Third Infantry.....	13	4	47	Mar. 19
110	William C. C. Lewis.....		General service.....	21		43	Mar. 19
111	John Pryor.....	H	Eighteenth Infantry.....	20	5	43	Mar. 19
112	Richard Green.....	C	Fourteenth Infantry.....	21		41	Mar. 19
113	Thomas King.....	A	Eighth Infantry.....	21		41	Mar. 19
114	Daniel Smith.....	A	District of Columbia and Maryland Volunteers.....		6	68	Mar. 20
115	Ernest Polk.....	H	First Artillery.....	20	10	46	Mar. 21
116	Andrew Schermm.....	F	Tenth Infantry.....	10	5	55	Mar. 24
117	William Stewart.....	K	Seventeenth Infantry.....		10	25	Mar. 29
118	Henry Gora.....	M	Fourth Artillery.....	11	4	37	Apr. 3
119	Henry Prevost.....	C	Twenty-second Infantry.....	20	1	51	Apr. 9
120	Thomas Murphy.....	B	Engineers.....	20	6	51	Apr. 11
121	Clarence H. Belmont.....	H	Fourth Artillery.....	1		28	Apr. 13
122	William R. Allen.....	A	Engineers.....	1	0	24	Apr. 18
123	Horace Ousley.....	A	Twenty-fourth Infantry.....	8	4	30	Apr. 21
124	John Stratford.....	A	Second Infantry.....	25	5	43	Apr. 24
125	Julius Goeb.....	N.C.S	Nineteenth Infantry.....	3	7	38	Apr. 24
126	John Fries.....	C	Eighth Cavalry.....	15		37	Apr. 24
127	Julius F. Benckhardt.....	E	Third Cavalry.....	21	11	44	Apr. 24
128	Ralph J. Squires.....		General service.....	20	9	43	Apr. 24
129	Henry Bourke.....	B	Engineers.....	20	7	49	Apr. 24
130	Timothy Sullivan.....		Hospital corps.....	17	2	49	Apr. 24
131	Henry C. Bickers.....	D	Mounted Rifles.....	1	5	70	Apr. 24
132	Peter Orange.....	G	First Artillery.....	30	1	55	Apr. 24
133	John Peter.....	I	Sixth Infantry.....	5		51	Apr. 24
134	John Williams.....	C	Tenth Cavalry.....	2	10	29	Apr. 24
135	James Nolan.....	E	Seventh Infantry.....	3	10	52	Apr. 24
136	Thomas Flynn.....	K	Third Cavalry.....	21	1	53	Apr. 24
137	Henry A. Joy.....		Ordnance.....	19		50	Apr. 24
138	Oliver C. Hayward.....	A	Second Artillery.....	3	0	67	Apr. 24
139	Neil McInnis.....		Ordnance.....	21	8	47	Apr. 24
140	Charles Taylor.....	B	Twenty-third Infantry.....	20		48	Apr. 24
141	John Frankman.....	F	Eighth Infantry.....	1	4	71	Apr. 24
142	Alfred Johnson.....	A	Fifteenth Infantry.....		9	26	May 3
143	James Meehan.....	I	First Artillery.....	18	8	41	May 3
144	Daniel Healy.....	D	Fifth Artillery.....	14	7	45	May 4
145	Patrick Mooney.....	L	First Artillery.....	7	9	49	May 7
146	William Hoppe.....		Ordnance.....	19	4	45	May 17
147	Peter Holt.....	G	Ninth Infantry.....	21	3	48	May 17
148	John Corcoran.....	C	Twentieth Infantry.....	20	2	50	May 18
149	John J. Murphy.....	I	Nineteenth Infantry.....	11	8	55	May 18
150	Leopold Fiedler.....	D	Third Cavalry.....	13	0	45	May 21
151	James Purvis.....	A	Fourth Cavalry.....	6	1	32	May 21
152	Dominick Roddy.....	E	First Infantry.....	3	10	26	May 21
153	Henry H. Lecronier.....	L	Third Artillery.....	15		36	May 21
154	John Huff.....	H	Ninth Infantry.....	30	9	60	May 21
155	John Gallagher.....	E	Third Infantry.....	19	7	50	May 21
156	James Brown.....		General service.....	14	6	61	May 21
157	Thomas D. Clifford.....	H	First Artillery.....	21	3	55	May 21
158	Mike Bennar.....	K	Twenty-third Infantry.....	4	10	28	May 21
159	Michael Dillon.....	I	Fifth Cavalry.....	17	2	59	May 21
160	Mark Hyland.....		Ordnance.....	29	2	52	May 21
161	Dennis G. Mullane.....	I	Fourteenth Infantry.....	21	8	43	May 21
162	William G. Wamsley.....	B	Sixth Cavalry.....	20		44	May 21
163	Walter Arlington.....	E	Seventh Infantry.....	12	8	42	May 21
164	Thomas Wynne.....		General service.....	27		60	May 21
165	Alfred Ross.....	C	Ninth Cavalry.....	5		36	May 21
166	John H. Boldt.....	D	Seventh Infantry.....	18		50	May 21
167	Augustus Addicks.....	E	Fourteenth Infantry.....	21		46	June 5
168	William J. Doyle.....	B	Eleventh Infantry.....	17	6	42	June 9

* In war with Mexico.

† Died since admission.

‡ Retired.

List of names, etc., of men admitted to the benefits of the Soldiers' Home during the year ending September 30, 1888—Continued.

No.	Name.	Last served in—		Service.		Age when admitted.	Date of admission.
		Company.	Regiment.	Years.	Months.		
169	Francis McGann	B	Fourth Artillery	2	3	48	June 9 1888.
170	Frank Walton	K	Twenty-fifth Infantry	20	1	38	June 15
171	John Hurd	K	Twenty-fifth Infantry	21	6	44	June 16
172	Wind-ld Seaman	B	Twenty-seventh Infantry	2	1	40	June 18
173	John Walsh	H	Ninth Infantry	20	1	42	June 18
174	Henry Ballo	A	Sixth Infantry	1	1	54	June 20
175	Patrick Fitzsimmons	B	do.	22		42	June 20
176	John Doyle	D	Third Artillery	20	7	43	June 20
177	Andrew Burko	C	Eighth Cavalry	12	3	44	June 20
178	John S. Lynch	K	Fifth Infantry	4	7	29	June 20
179	Charles O. Hammer	G	Twenty-first Infantry	22	7	46	June 20
180	John Hale	A	Seventh Cavalry	20	2	42	June 20
181	Dennis Quill	F	Ordnance	21		52	June 20
182	Henry Spaar	A	Second Artillery	22	4	58	June 20
183	Thomas Riley	B	Nineteenth Infantry	24	5	49	June 25
184	Renzy Murray	A	Twenty-fourth Infantry	3	7	30	June 27
185	Frank E. Smith	G	Tenth Infantry	1	6	34	July 2
186	George Walter	L	Fifth Cavalry	1	6	32	July 3
187	John J. Wood	G	Second Artillery	20	4	42	July 12
188	Hugo Baldauf	H	Eleventh Infantry	20		41	July 14
189	Charles Pellan	A	Sixth Cavalry	2	10	25	July 16
190	Edward Smith	G	Fourth Infantry	24	8	46	July 20
191	Patrick Burke	C	Second Artillery	9	8	55	July 22
192	Warren B. Stacy	B	Engineers	23	4	49	July 23
193	Alfred Perry	I	Fourth Infantry	20	3	45	July 23
194	John Pallister	G	Eighteenth Infantry	1	10	49	July 23
195	Charles Bernard	E	Seventh Infantry	23	5	54	Aug. 2
196	John Kelcher	F	Eighth Cavalry	18	6	42	Aug. 15
197	John Adings	G	Twenty-fourth Infantry	6	8	21	Aug. 21
198	Christian Exell	I	Sixteenth Infantry	23	9	51	Aug. 21
199	John Fletcher	G	First Ohio Volunteers		5		Aug. 21
200	Alexander Henagel	B	Fourth Infantry	3	1	66	Aug. 21
201	Louis Humphreys	C	Twenty-third Infantry	16	3	44	Aug. 21
202	Andrew Keller	F	Fifteenth Infantry	5	11	29	Aug. 21
203	Barney Mucker	D	Twentieth Infantry	19	7	45	Aug. 21
204	Francis Rooney	C	Third Cavalry	2	7	40	Aug. 21
205	Daniel Schmidt	K	Sixth Cavalry	2	8	25	Aug. 21
206	Thomas W. Sims		General service	28	4	69	Aug. 21
207	Thomas Walls	G	First Infantry	14	6	41	Aug. 21
208	Michael Walther	G	Fourth Artillery	1	2	75	Aug. 21
209	William C. Wyatt	I	First Virginia Volunteers	1	8	60	Aug. 21
210	Wolcott C. Tucker	A	Seventh Infantry	21	1	56	Aug. 28
211	Adam Fraber		General service	34	5	72	Aug. 21
212	Harrison A. Gordon	E	Third Louisiana Volunteers		3		Sept. 12
213	Thomas Cunningham	E	Fifth Infantry	20	4	53	Sept. 6
214	Charles Irwin	C	Tenth Infantry	27	10	61	Sept. 17
215	George W. Tucker	D	Second Infantry	3	7	42	Sept. 17
216	James Gamble	E	Eighth Infantry	5		63	Sept. 17
217	John Conroy	K	Twenty-first Infantry	21	9	47	Sept. 17
218	Patrick Coughlin	C	Third Infantry	2	6	59	Sept. 17
219	Francis Edwards	K	Third Artillery	12	10	50	Sept. 17
220	Horace T. Henry	H	Fifth Louisiana Volunteers		3		Sept. 17
221	Bernard F. Keenan	E	Sixth Cavalry	2	10	28	Sept. 17
222	John Mason	C	Fourteenth Infantry	23	6	52	Sept. 17
223	Henry McDade	G	Second Artillery	12	10	40	Sept. 17
224	Robert Pillsworth	I	First Artillery	16	11	49	Sept. 17
225	Patrick Reilly	E	Fourth Artillery	1		57	Sept. 17
226	James Riddle	E	Twelfth Infantry	20	6	48	Sept. 17
227	Edward Spalno	C	Twentieth Infantry	5	10	33	Sept. 17
228	Jacob Weiss	H	Eighth Infantry	14	7	41	Sept. 17
229	Gustave Fritz	F	Third Artillery	21	6	44	Sept. 17
230	Johann Gissel	K	Fifteenth Infantry	4	6	34	Sept. 17
231	Thomas Mulligan	A	Third Infantry	4	6	66	Sept. 17
232	Abraham Schneider	I	Fifth Cavalry	3	8	28	Sept. 17
233	Patton G. Whitehead	B	Fifth Infantry	19	5	49	Sept. 17
234	John Connelly	Band	Seventeenth Infantry	21	11	41	Sept. 19
235	Charles Crane	F	Fourth Infantry	14	8	43	Sept. 20
236	Augustus M. Bauman	I	Twenty-first Infantry	14	3	42	Sept. 22
237	Henry Miller	I	do.	24	5	60	Sept. 22
238	George Ferrers	G	Seventeenth Infantry	25	2	50	Sept. 27

* Died since admission.

† In war with Mexico.

NOTE.—Two names upon the list (Nos. 185 and 186) are those of men who are entitled to regular admission, but who are borne as temporary inmates until they shall refund the cost of their transportation to the Home.

REPORT OF THE INSPECTOR-GENERAL, U. S. ARMY, ON THE SOLDIERS' HOME, WASHINGTON, D. C.

WAR DEPARTMENT, INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., October 1, 1888.

SIR: I have the honor to submit the following report of an inspection of the Soldiers' Home, made in compliance with the provisions of the act of Congress approved March 3, 1883.

The Home continues under the able and exceedingly efficient management of Brevet Maj. Gen. Henry J. Hunt (colonel, retired), U. S. Army, who seems to be well seconded in his work by Capt. Robert Catlin, U. S. Army, as deputy governor, Brevet Maj. B. F. Rittenhouse as secretary and treasurer, and Surgeon C. C. Byrne as medical officer. The figures are as follows:

Permanent beneficiaries October 31, 1887.....	932
Admitted since to date of inspection.....	226
Re-admitted since to date of inspection	66

1,224

DROPPED.

By withdrawal.....	45
Absence without leave	28
Dismissed	12
Abandoned the Home	10
Died.....	41
Loss in outside commuters	51

187

Permanent beneficiaries September 26, 1888.....	1,037
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The number admitted to the Home has been increasing in late years. The number admitted annually for the past seven years appears to have been as follows:

In 1882 there were admitted.....	127
1883 there were admitted.....	134
1884 there were admitted.....	193
1885 there were admitted.....	192
1886 there were admitted.....	208
1887 there were admitted.....	199
1888 there were admitted.....	226

It will be seen by the above figures that the number admitted in the current year is about one hundred in excess of the number admitted seven years ago. The governor of the Home is very decidedly of the opinion that the decision made by the Commissioner of Pensions in 1877, "that pensioners who had been contributors to the fund of the Home were not required to surrender their pensions while receiving its benefits," has had a pernicious effect upon the Home and has injured the discipline of his charge. The validity of the decision of the Commissioner was tested by a concrete case, and the Court of Claims decided in favor of the claimant, which decision, upon appeal, was affirmed by the Supreme Court. The legislation bearing upon this subject seems to be as follows:

Section 5 of the act of March 3, 1851, entitled "An act to found a military asylum for the relief and support of invalid and disabled soldiers of the Army of the United States," reads as follows:

And be it further enacted, That any soldier admitted into this institution, for disability aforesaid, and who shall recover his health, so as to fit him again for military

service (he being under fifty years of age), shall be discharged: *Provided*, That any pensioner on account of wounds or disability incurred in the military service, although he may not have contributed to the funds of the institution, shall be entitled to all the benefits herein provided, upon transferring his pension to said asylum, for and during the period that he may voluntarily continue to receive such benefits.

Section 6 of the act of March 3, 1859, making appropriations for the Army, reads as follows:

And be it further enacted, That the benefits of said act be, and they are hereby, extended so as to include the invalid and disabled soldiers, whether regulars or volunteers, of the war of eighteen hundred and twelve, and of all subsequent wars; and that so much of the act of the third of March, eighteen hundred and fifty-one, as is inconsistent herewith be, and the same is hereby, repealed.

The commissioner who codified the statutes evidently intended that section 4820 of the Revised Statutes should be an epitome of the foregoing acts relating to pensions of the Asylum and Home.

Section 4820 reads as follows:

The fact that one to whom a pension has been granted for wounds or disability received in the military service has not contributed to the funds of the Soldiers' Home shall not preclude him from admission thereto. But all such pensioners shall surrender their pensions to the Soldiers' Home during the time they remain therein and voluntarily receive its benefits.

As is seen, the effect of the word *such* in the context of this section is to impose the forfeiture of pension on admission to the Soldiers' Home only upon such as have been granted pensions for wounds, etc., who had not contributed to the funds of the Home, while all other pensioners are admitted without forfeiture of all or any portion of their pensions. The Supreme Court of the United States has affirmed the correctness of this decision of the Commissioner of Pensions. In looking up the matter I find that a tentative effort seems to have been made in 1880 to correct the oversight in the revision of the United States Statutes, and a bill was introduced in the Senate in the second session of the Forty-sixth Congress (No. 1550), which reads as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-eight hundred and twenty of the Revised Statutes of the United States, chapter two, title forty-nine, be, and the same is hereby, amended by striking out in line four the word "*such*," so that the section will read:

"SEC. 4820. The fact that one to whom a pension has been granted for wounds or disability received in the military service has not contributed to the funds of the Soldiers' Home shall not preclude him from admission thereto. But all pensioners shall surrender their pensions to the Soldiers' Home during the time they remain therein and voluntarily receive its benefits."

This bill seems to have died without discussion.

At the date of the original acts making the provision that pensioners could elect to become inmates of the Soldiers' Home by surrendering their pensions to that institution or to remain outside and receive their pensions themselves, the highest pension paid to enlisted men was \$8 a month, or the amount that it is estimated to cost to support an inmate of the Home. Subsequent legislation has made the amount of pension dependent upon the degree of disability, and there can be no doubt of the fact that in some cases it might work a very great hardship upon the pensioner to require him to transfer *all* his pension to the Home because he found it best for him to take up his residence there. The pensioners now in residence are rated as follows:

Twenty-two who draw \$2 per month; 4 who draw \$3; 81 who draw \$4; 1 who draws \$5; 81 who draw \$6; 1 who draws \$6.25; 300 who draw 8; \$3 who draw \$9; 44 who draw \$10; 64 who draw \$12; 1 who draws \$13; 19 who draw \$14; 25 who draw \$16; 7 who draw \$18; 26

who draw \$24; 16 who draw \$30; 2 who draw \$36—total number of pensioners, 696.

Of these pensioners 456 are present in the Home, 26 of whom have assigned their pensions to relatives. The pensions of the remaining 430 are drawn by the treasurer of the Home, as authorized in the act of March 3, 1883. The amount placed to the credit of the treasurer of the Home on account of inmate pensioners for the current year has been \$59,150.22.

It is to be noticed that the number of pensioners and the amount of the pensions passing through the hands of the treasurer of the Home have been steadily increasing for some years. The following table shows the percentage of the total number of inmates present that were pensioners at the date of a number of inspections and the total amount of pension money drawn by the treasurer for that year.

	Year.			
	1885.	1886.	1887.	1888.
Inmates.....number..	805	715	703	654
Percentage of pensioners.....	42	56	67	70
Pension money drawn by treasurer.....	\$44, 704. 71	\$47, 333. 57	\$49, 534. 94	\$50, 150. 22

Of the pensioner beneficiaries we find that about 100 of them, as seen in table on page 900, to be receiving \$13 per month or more. Now, \$13 per month is just what the able-bodied man gets on enlisting. It would seem that the keeping of so many men under full pay while occupants of an institution founded for the support and relief of invalid and disabled soldiers who, theoretically, are no longer able to earn a living is rather anomalous.

In addition to these pensioners with high pensions we find the number of retired soldiers that elect to become inmates of the Home is increasing from year to year. These men get their retired pay and allowances. The allowances include commutation of rations and clothing. When they become inmates of the Home they continue to receive from the General Government the money value of the rations and clothing that they are supposed to supply for themselves, while, in fact, these things are being supplied to them by the Soldiers' Home.

Again, of the 25 per cent. or 164 of the inmates who are receiving pensions, 50 per cent. or 81 are now employés of the institution. The rates of pay to the inmate employés is given on page 910. It would seem that there is more being done for these men than is necessary, and certainly more than is for their own good.

In looking over the inmates collectively, while they were dining, it appears that a very large percentage of them are still comparatively young men who are apparently in fair physical condition, and providing these men with a comfortable home, with all the comforts and necessities of life, while they are in receipt of an independent quarterly allowance with which to gratify their personal tastes, does not seem to be for the best interests of the institution. It is apt to lead to more or less disorder in the Home and cause more or less discomfort to the most deserving of the inmates. I think the conditions upon which soldiers who have been placed upon the retired list and those who are already in receipt of pensions from the Government are admitted into the Home should be made the subject of new legislation. It would seem that the

welfare of the most needy of the inmates and the best interests of the institution require such action.

The number of inmates now present is really greater than the Home is prepared to accommodate properly, and there are 110 on furlough and 67 in hospital. When the extension on the north wing has been completed it will ease the Home in accommodations for the time, but without new legislation or the application of some other remedy at an early day, the current rate of increase will render additional dormitories necessary.

The buildings are in good repair and well cared for. The grounds are kept in an excellent state of police and the roads in good condition.

The kitchen and dining-room are not satisfactory, both being too small for the requirements, but arrangements are made for curing these deficiencies in the completion of the new extension.

The library is in good condition and contains a fair supply of standard books and current literature. The catalogue figures up as follows:

	Volumes.		Volumes.
Books of fiction	1,573	History	239
Miscellaneous	1,327	Agricultural	35
Magazines	711	Religious	97
Travels	111	Military	240
Biography	165		
Poetry	207	Total	4,705

Papers for reading-room: Dailies, 12; weekly, 29; pictorial, 10; magazines, 29.

The financial condition of the institution is not definitely known and, as is usual with uncertainties, it is far from satisfactory to those in charge. Since the last annual inspection the \$31,000 of Missouri Pacific bonds then on hand have been sold and that amount placed to the credit of the permanent fund of the Home.

Since the passage of the act of March 3, 1833, which required that all the funds "not needed for current use, which are not now invested in United States registered bonds, shall, as soon as received, or as soon as present investments can be converted into money without loss, be deposited in the Treasury of the United States to the credit of the Home, as a permanent fund, and shall draw interest at the rate of 3 per cent. per annum, which shall be paid quarterly to the treasurer of the Home; and the proceeds of such registered bonds as they are paid shall be deposited in like manner." There has been deposited to the credit of the permanent fund of the Home from interest on bonds, sales of bonds, and sales of property the sum of \$1,064,930.83.

The Second Auditor has settled accounts and placed annually the following amounts of money to the credit of the permanent fund of the Home:

Period.	Contributions, fines, etc.	Unclaimed moneys (effects of deceased soldiers).	Forfeitures on account of desertion.
Mar. 3, 1883, to Sept. 30, 1883.	\$61,836.75	\$109,997.42	.....
Sept. 30, 1883, to Sept. 30, 1884.	128,020.65	235,493.42	\$2,000.76
Sept. 30, 1884, to Sept. 30, 1885.	122,528.91	43,470.06	113,122.61
Sept. 30, 1885, to Sept. 30, 1886.	74,030.64	1,620.69	142,349.78
Sept. 30, 1886, to Sept. 30, 1887.	170,835.32	3,162.59	100,575.98
Sept. 30, 1887, to Sept. 30, 1888.	188,414.11	.....	226,716.82
Total	745,602.38	393,749.18	583,846.13
Grand total .....	.....	.....	1,723,197.00

The receipts of the permanent fund from all sources since the passage of the act of March 3, 1883, seem therefore to have aggregated \$2,788,128.52, from which there has been drawn upon the order of the Commissioners of the Home \$994,229.66, leaving a balance of the permanent fund to the credit of the Home on the 30th of September, 1883, of \$1,798,898.86.

An examination of the accounts of the Home for some years past shows that its ordinary annual expenditures pivot around the sum of \$175,000. An approximate estimate of the revenue to the Home from the monthly contributions of the enlisted men of the Army, from the fines forfeited to the Home by the sentences of courts-martial, and from forfeitures on account of desertion, shows that \$100,000 per annum can be reasonably expected from these sources. The 3 per cent. per annum granted the Home on the permanent fund standing to its credit in the Treasury would, with the present deposit, amount to \$53,816.96 per annum. The total annual income of the Home, as its accounts stand to-day, would thus be \$163,816.96. After being shown a schedule of the credits given the Home from a partial settlement of the accounts of ninety-five companies of our present Army, it is evidently safe to say that when a complete settlement is made the Home will have a permanent fund of not less than \$3,000,000, provided it does not draw upon its capital in the mean time.

The amount credited to the Home in the office of the Second Auditor during the past year was \$415,160.93, and the expenditures in building at the Home were \$98,355.42, and the current expenses \$165,138.78, making a total expenditure of \$263,494.20. The amount credited by the Second Auditor exceeded the expenditures of the Home by but \$151,666.75. The total amount credited to the Home by the Second Auditor since the passage of the act of March 3, 1883, foots up \$1,723,197.69. Of this amount there now stands credited to the permanent fund \$728,968.03. The credits over and above drafts made upon them seem to pivot about the sum of \$150,000. At the present rate of closing the old accounts it is hazarding but little to say that they will not be closed in fifteen years from date. In the mean time, it is within the power of the Army itself to ascertain whether the Home is being supported upon its legitimate income or is drawing from its capital. An order from the honorable Secretary of War directing that paymasters shall report for one fiscal year the sum total of contributions, fines, and forfeitures by desertion, on each roll they pay, to some designated bureau in the War Department, would secure this data, which seems to be very desirable, and it is therefore recommended.

There is a farm, a dairy, and a vegetable garden in connection with the Home. Leaving the original cost of the property out of the consideration, these various branches of industry show the following results:

Farm accounts:	
Expenditures	\$9,941.46
Credits	11,550.78
Balance in favor of farm	1,609.32
Dairy accounts:	
Expenditures	6,824.39
Credits	9,998.59
Balance in favor of dairy	3,174.20
Garden account:	
Expenditures	4,758.70
Credits	4,758.70

The civil employes of the Home are as follows:

Employés.	Per month.	Employés.	Per month.
1 gardener.....	\$50.00	1 farm overseer.....	\$50.00
6 farm hands.....	35.00	1 dairyman.....	50.00
1 assistant dairyman.....	23.00	1 second assistant dairyman.....	20.00
1 driver dairy wagon.....	18.00	1 cook for dairymen.....	8.00
1 clerk to secretary and treasurer.....	100.00	1 clinic assistant to attending surgeon.....	100.00
1 tinmith.....	75.00	1 plumber.....	75.00
1 blacksmith.....	75.00	1 engineer of water-works.....	50.00
1 engineer of heating.....	75.00	1 assistant engineer.....	60.00
1 fireman.....	28.00	1 chief cook.....	35.00
2 assistant cooks.....	25.00	1 butcher.....	25.00
1 driver hospital ambulance.....	18.00		

In addition to these, who are employed by the month, there are—

Employés.	Per day.	Employés.	Per day.
7 laborers in garden.....	\$1.25	1 stone-mason.....	\$3.00
1 mower.....	1.50	1 assistant stone-mason.....	1.25
6 farm laborers.....	1.25	2 laborers in gravel pit.....	1.25

Calculating twenty-six days in the month, gives the monthly outlay for civil employés at \$1,820.

The following are the inmates of the Home who are employed about the Home proper and on the farm or grounds and in the garden and dairy, to-wit:

List of inmates employed on extra duty, United States Soldiers' Home, District of Columbia, and rates of pay.

Designation.	Rate of pay.	Designation.	Rate of pay.
	<i>Month.</i>		<i>Month.</i>
Home buildings:		5 gate-keepers.....	\$7.00
1 sergeant-major.....	\$30.00	1 man in charge of lamps on Home grounds.....	7.00
1 commissary sergeant.....	18.00	1 cart driver (police).....	9.00
4 first sergeants.....	15.00	Dairy and farm:	
1 quartermaster sergeant.....	12.00	2 watchmen on farm.....	10.00
8 floor sergeants.....	12.00	4 cattle herders.....	10.00
1 floor sergeant and in charge of clock.....	17.00	Shops and wood-house:	
6 corporals.....	10.00	3 carpenters.....	15.00
4 men in charge of urinals, bath and wash.....	7.00	2 painters.....	15.00
5 men in charge of urinals, bath and wash.....	5.00	1 plumber's helper.....	10.00
1 man in charge of floors and property in cottage.....	7.00	1 laborer in wood-house.....	9.00
1 reader to the blind.....	7.00	1 upholsterer.....	15.00
1 assistant laundryman.....	7.00	1 blacksmith's helper.....	9.00
2 night watchmen.....	10.00	Treasurer's office:	
1 bugler.....	7.00	2 clerks.....	20.00
Governor's office:		1 orderly treasurer and government officer.....	10.00
1 orderly and messenger.....	10.00	Hospital:	
2 clerks.....	9.00	3 ward masters.....	10.00
Kitchen:		1 chief cook.....	20.00
4 assistant cooks.....	10.00	1 assistant cook.....	10.00
Dining-room:		1 man in charge of dining-room.....	10.00
1 sergeant in charge.....	12.00	1 acting commissary sergeant in charge of store.....	10.00
20 waiters, etc.....	9.00	1 hospital attendant and librarian.....	14.00
Home police:		1 messenger to attending surgeon.....	10.00
1 corporal, chief.....	5.00	15 hospital attendants.....	9.00
5 house and general police.....	7.50	Home band:	
Library:		1 band leader.....	15.00
1 librarian.....	10.00	2 first-class musicians.....	12.00
1 assistant librarian.....	7.00	6 second-class musicians.....	8.00
1 bookbinder.....	15.00	2 third-class musicians.....	6.00
Amusement rooms:		Miscellaneous:	
1 man in charge of billiard and pool tables.....	7.50	1 mail carrier.....	15.00
1 laborer in billiard room.....	7.00	1 laborer in engine-house.....	10.00
1 man in charge of smoking and amusement rooms.....	7.50	1 laborer in chapel.....	7.00
Grounds and roads:		3 drivers, mail, commissary, and laundry wagons.....	9.00
1 sergeant overseer of working parties.....	20.00	1 laborer in ice-boat house.....	9.00
22 laborers on roads.....	9.00	1 laborer in stables.....	9.00

The sum of the amounts paid to these inmates foots up \$1,662.50 per month, which, added to the amount expended for civil employes, makes a total sum of \$3,582.50 per month paid to employes.

In looking over the inmates it seems to me that there are large numbers of them that would be much benefited by a little wholesome outdoor exercise and I would recommend that some of the work now done by paid inmates be done by daily details. It would certainly be better for both the inmates and the Home, and these men have been accustomed to taking care of their barracks, mess-rooms, grounds, etc., while on the active list, and are qualified to do such work.

The public animals of the Home consist of 15 horses and 9 mules, all in good serviceable condition, 40 milch cows, 15 heifers, 6 calves, and 2 bulls.

HOSPITAL.

The hospital is in excellent condition and has ample capacity for present number of occupants (57).

There have been 39 deaths at the Home during the year, which is about the rate of previous years. The average age of the decedents is given by the surgeon as 46.23 years, which is certainly a very fair longevity for men who have undergone the hardships and exposure that the great majority of the inmates of the Home have experienced.

A verification of the money accounts of the treasurer on the day of inspection resulted as follows:

Deposited in National Metropolitan Bank.....	\$36,064.34
Commuters' checks on hand.....	5,609.00
Cash on hand in safe.....	58.17
Total.....	41,731.51

There are in the safety vault of the National Savings Bank six certificates of stock of the Young Men's Christian Association, five certificates for 400 shares each, and one certificate for 500 shares. The par value of these shares is \$25, but the stock is only worth about 50 cents on the dollar, and the Board of Commissioners have made arrangements by which the Home will be secured to the extent of \$30,000 on this stock. Considering the fact that this stock was reported worthless but two years ago, this state of things is certainly gratifying.

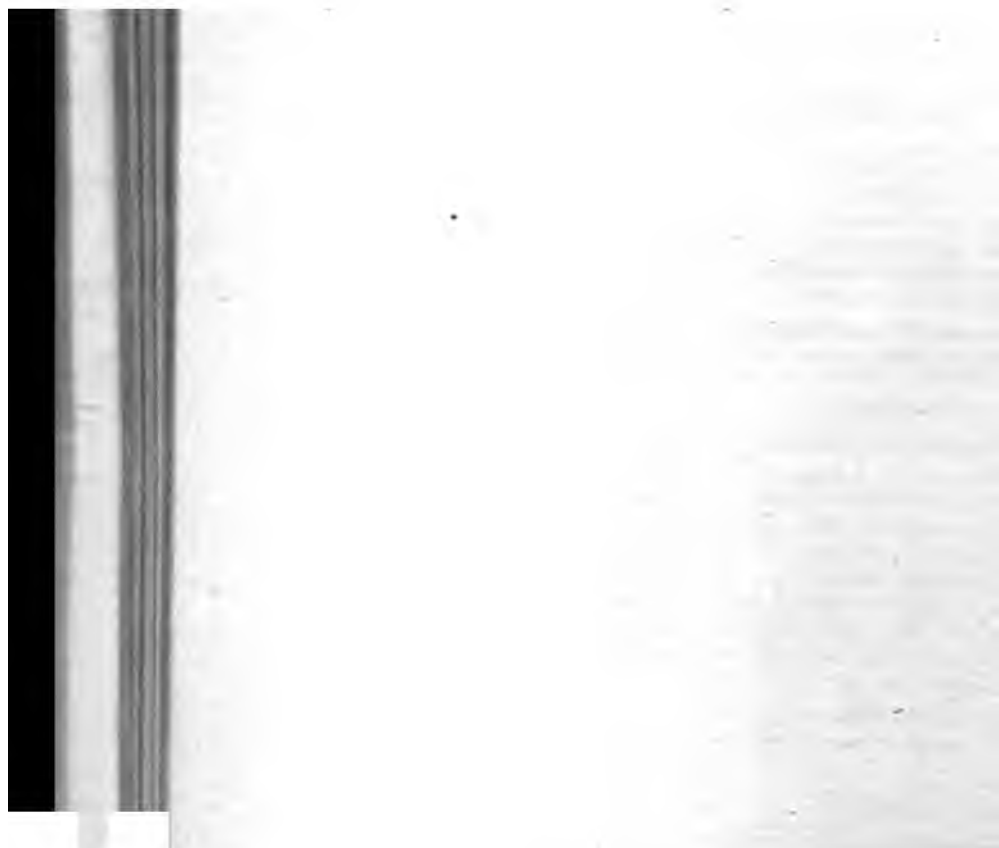
The verification of the treasurer's accounts with inmate pensioners resulted as follows:

Credited in United States Treasury.....	\$33,664.20
In check in hand.....	90.00
Total.....	33,754.21

Respectfully submitted.

R. P. HUGHES,
Colonel, Inspector-General, in Charge.

The SECRETARY OF WAR.



UNITED STATES MILITARY ACADEMY.

WAR 88—VOL. I—58

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5. Prof. W. D. F. LUMMIS.....PERRY, IOWA.
6. Hon. JOHN M. ADAMS.....PORTLAND, MAINE.
7. Hon. PETER WHITE.....MARQUETTE, MICHIGAN.

Appointed by the President pro tempore of the Senate.

8. Hon. S. M. CULLOM.....SPRINGFIELD, ILLINOIS.
9. Hon. JOHN H. REAGAN (*Vice-President*).....PALESTINE, TEXAS.

Appointed by the Speaker of the House of Representatives.

10. Hon. R. W. TOWNSHEND.....SHAWNEETOWN, ILLINOIS.
11. Hon. ASHBEL P. FITCH.....NEW YORK, NEW YORK.
12. Hon. HENRY BACON.....GOSHEN, NEW YORK.

REPORT
OF
THE BOARD OF VISITORS TO THE UNITED STATES
MILITARY ACADEMY.

WEST POINT, N. Y., June 11, 1888.

SIR: The Board of Visitors appointed to attend the annual examination of the United States Military Academy for the year 1888 assembled at West Point on June 1, and organized by the election of General H. W. Slocum, president; Hon. John H. Reagan, vice-president; and Rev. A. J. Battle, secretary.

The following committees were appointed, viz:

Admissions, appointments, etc.—Hon. John H. Reagan, Prof. W. D. F. Lummis, Hon. R. W. Townshend, Hon. J. M. Adams, Dr. A. J. Battle.

Buildings and grounds.—Hon. Henry Bacon, Hon. Peter White, Hon. S. M. Cullom, Hon. A. P. Fitch, Hon. John H. Reagan.

Discipline and instruction.—Prof. W. D. F. Lummis, Dr. A. J. Battle, Hon. S. M. Cullom.

Police administration and fiscal affairs.—Hon. Edward A. O'Neal, Hon. Henry Bacon, Hon. Henry Flanders.

Cadets and supply department.—Hon. A. P. Fitch, Hon. J. M. Adams, Hon. Peter White.

Ordnance and armament.—Hon. R. W. Townshend, Hon. Henry Flanders, Hon. E. A. O'Neal.

The members of the Board spent several days in attendance at the examinations of the cadets and in inspecting the public buildings and grounds.

On several occasions the Superintendent and members of the Academic Board met with the Board of Visitors, and these officers and all others connected with the Academy cheerfully gave all information desired.

DISCIPLINE AND INSTRUCTION.

Section 1328 of the Revised Statutes makes it the duty of this Board to inquire into the actual state of the discipline and instruction at the Academy and to report upon the same for the information of Congress. We regard the duties of the Board as simply ministerial, no power being vested in it to change in the slightest degree the management or administration of the institution. The Board is simply a means of communication between the Academy and the executive and legislative branches of the Government.

The Board take pleasure in reporting that, in their judgment, in thoroughness of discipline and instruction the Military Academy is not ex-

celled, if indeed it is equaled, by any other literary or scientific institution in our country. Its excellence in these respects has been a matter of growth, the changes which from time to time have been made having been the result of long experience and careful study on the part of those having charge of the institution.

The views of this Board as to the present condition of the Academy and the steady advance it is making can not be better expressed than by quoting the language of General Totten in a report made by him to the Secretary of War in 1843:

In June last, pending the examination, I was at the institution between two and three weeks, devoting all my time to the inspection which my official duty exacts of me. During this time I was careful to visit and examine each department of the Academy, looking into everything with as close a scrutiny as it was in my power to exercise, and it gives me great pleasure to report to you that I found the Academy not less prosperous and not less fully answering the designs of its establishment than at any previous period. Discipline, order, and harmony prevailed, and as perfectly, perhaps, as belongs to human associations.

The several courses of study were marked by the peculiar thoroughness that characterizes this school.

In these courses, though there must from year to year be inequalities in the amount of attainment, owing to the shades of different intellects of the successive classes, the general result shows progressive enlargement; that is to say, there is from year to year an increase in the amount or an improvement in the character of the knowledge communicated, resulting from the experience of the institution itself. The fact of this progress is evident on comparing periods of a few years distant from each other, and is a natural result on the one hand of the zeal, ability, and devotion that have been unceasingly applied to the management and instruction, and on the other of the steady adherence to safe and wise principles.

For more than twenty-five years, while the institution has been thus rising, no change has been grafted on its code of discipline or course of study that has not been the growth of its own experience.

And by force of this wise and cautious process it has been constantly developing new capacities and new fruits of self-cultivation. By continued adherence to this course we may confidently look for all the improvement the future can bring forth. To arrest this natural progress, or with a strong hand to press it into new and untried shapes at the suggestion of speculation and theory, would surely be an unwise departure from the course of improvement heretofore pursued with such full success.

APPOINTMENTS AND ADMISSIONS.

The Board have considered the subject of appointments and admissions, and after conferences with the Superintendent and members of the Academic Board and a full discussion of those questions, in which a variety of views were expressed, they do not recommend any change of the law as to the admission of cadets or the standard of the qualifications for their admission.

The question has been considered by the Board as to the propriety of increasing the number of cadets to be admitted by provisions of law authorizing the governor of each State to recommend a person for appointment as cadet in addition to those now provided for by law.

Inasmuch as it is understood that the number of cadets who graduate every year furnishes a greater number of officers than are necessary for the Army as now organized, the Board have not thought it advisable to recommend an increase of their number. For the Government to undertake to educate a greater number of cadets than are necessary to furnish officers for the Army would be, to the extent of the change, an alteration of the character of the Military Academy and the making it an institution for the general education of the youth of the country. The Board think this need may be better met by the other educational institutions of the country; and that the purposes for which the Military Academy was established would be better subserved by

limiting the course of instruction to the plan now existing of educating the cadets especially for the profession of arms.

The Board have also, to some extent, considered the question as to the propriety of the establishment of a preparatory school for cadets, and, in connection with this, the making of a higher standard of qualification for their admission, as a means of enabling the Military Academy to afford them a more extended course of study in the higher branches of science.

While these questions may well occupy the attention of the Superintendent and Academic Board of the Academy, and of Congress, this Board, in view of their brief term of service and of other duties required of them, have neither the time nor means of making a satisfactory investigation of these questions.

BUILDINGS AND GROUNDS.

The Board have examined the grounds and buildings upon the military reservation, and the adjoining tract of land, containing 200 acres, which it is proposed shall be acquired by the United States for the uses of the Military Academy. They find a number of small buildings used as quarters for the married soldiers and their families, and for storage purposes, in a dilapidated and disgraceful condition. The credit of the Government and a proper regard for the preservation of its property and for the comfort and health of the enlisted men demand that such buildings should be removed and suitable structures substituted. The present condition of these buildings is due to the inadequacy of appropriations for repair and reconstruction of buildings, and not to any failure of the superintendents or officers in charge of the Academy to expend properly the means with which they have been provided. The reconstruction of this class of buildings should be speedily provided for, and should, in our opinion, be done gradually by systematic annual expenditures, to be continued until all the present unsightly and unsafe structures have been replaced by new and proper buildings.

The Academy grounds and buildings are now lighted by gas. The apparatus has been in use for many years and is nearly worn out, and will soon have to be replaced by new works or be repaired at a large expense. The Board are of the opinion that it would be unwise to build new gas-works or to make any expenditure upon the old ones, except such repairs as are imperatively needed to keep the apparatus in working order, and that the lighting of the buildings and grounds at the Military Academy should be done by electricity. We are led to this conclusion from the following consideration:

- (1) That the cost of lighting by electricity, after the plant has been provided, will be less than by gas.
- (2) That the light itself, by the use of incandescent burners, in the cadet quarters will be much less trying upon the eyes of the cadets. And by reason of its not making any heat, it will affect the atmosphere less and will add to the healthfulness of the quarters.
- (3) It will afford a much more effective system of lighting the grounds surrounding the buildings.

The Board further report that they have particularly examined the building designated as the academic building. This building was erected in 1838, and was originally intended as the hall of instruction for the cadets. Its lower story was formerly used for a riding school and has since been used as a gymnasium. The building long since ceased to afford accommodation sufficient for the purposes for which it is needed. A por-

tion of the library building has been used as an academic building, and as the library is constantly growing, all the room in that building will soon be needed for the proper arrangement of the books and their convenient use. The academic building is also badly lighted and ventilated. Several plans have been suggested for repairs of the present building, and one was adopted involving the expenditure of \$70,000 upon this building and the erection of a separate building for the department of natural and experimental philosophy; also a separate building for the gymnasium. An appropriation of this amount was made by Congress. Bids were called for and when opened the least proposal involved an expenditure of over \$100,000. Thereupon the Academic Board reconsidered its action and caused to be prepared, without expense to the Government, plans for a new building to take the place of the present structure, and to include with the other departments the accommodations necessary for the department of natural and experimental philosophy. Those plans were approved by the Academic Board and submitted to and approved by the Secretary of War. A bill has been introduced in the House of Representatives, and favorably reported by its Committee on Military Affairs, providing for the erection of the building in accordance with those plans and at an expense not to exceed \$190,000. The plans have been submitted to the Board, and we have also been informed as to the method by which the cost of the erection of the building has been estimated. We are satisfied that the old building is worn out and insufficient, and we think it can not be repaired so as to make it proper and sufficient for the requirements of the Academy without a larger expenditure than is prudent, and that if repaired it would soon become insufficient by reason of the natural growth of the Academy. The plans submitted to us provide for a building which will be proper and sufficient for the present needs of the institution, and for those which will accompany its growth for many years. We are convinced that the estimate of the cost of its erection has been carefully made and will be found to cover all the expenditures required for its completion.

We therefore recommend that all plans for the repair of the old building be abandoned and that the building be removed, and a separate building be erected for the department of natural and experimental philosophy, as shown upon the plans referred to, and provided for by the bill now reported favorably to the House of Representatives.

The Board also recommend that there be erected at once a building for the use of the Military Academy as a gymnasium. The destruction of the present academic building will deprive the Academy of any gymnasium. The present one is unfitted for such use. A building of this nature is absolutely necessary for the well-being of the cadets, particularly in the winter and spring, when drilling cadets outdoors is impossible. The plans for the building have been prepared by the members of the Academic Board and submitted to and approved by the Secretary of War. The amount necessary for the purpose is included in the bill above mentioned, now pending in the House of Representatives, the estimates for which have been prepared by the Board and submitted to us, and we are convinced that the estimate covers all the expenses necessary for the completion of the building.

We recommend its erection at a cost not to exceed \$100,000.

The Board have also examined the tract of land which it is proposed to purchase for the use of the Academy, and finds that it consists of about 200 acres, lying contiguous to the south line of the reservation

between it and the village of Highland Falls. It has been heretofore used as a place of residence by Edward Kinsley, now deceased, and, owing to his death, must be sold for the purposes of distribution among his heirs.

In the opinion of this Board it is desirable and necessary for the welfare of the Academy and the maintenance of the discipline required in such an institution that this land should be purchased and added to the Military Academy Reservation. A plot of this land, showing its contiguity to the Military Academy, is herewith submitted, marked Exhibit A.

POLICE ADMINISTRATION AND FISCAL AFFAIRS.

The Board have examined into the management of the fiscal affairs of the Academy and the police department, and have visited the several departments having charge of these matters, and have found that the affairs of each are conducted in a systematic and exact manner, and are unable to suggest any improvement in the methods now used.

They have also examined the books of the treasurer, quartermaster, and commissary of cadets, who keep the accounts of the money belonging to the cadets individually, or appropriated for their use and support, and are perfectly satisfied with the same.

The Board have examined with care the food and clothing supplied to the corps of cadets and the system under which the same are purchased and distributed. They also inspected the laundry, kitchen, tailor-shop, and the supplies on hand. Every opportunity was given by the officers in charge for a thorough and complete investigation of the manner in which the physical wants of the cadets are met.

Inquiry has also been made of the cadets themselves as to the quality and quantity of the food and other supplies furnished them. Such inquiry has developed the fact that the cadets are entirely satisfied in these respects, and that they contrast favorably their treatment at this Academy with that at the boarding-schools which they had attended. From statements made by graduates of former years it is believed that an important and praiseworthy improvement has taken place.

In view of the general satisfaction with the food, clothing, and other supplies which the Board find now existing, they desire to make no suggestion of any change from the present system.

The Board desire in particular to express their gratification with the personal bearing and conduct of the cadets, and with the admirable harmony and sincere interest in their professional work which is apparent in each member of the corps of instructors, to whose earnest and faithful work the results achieved by the cadets are clearly due.

The establishment of a military academy was suggested and advocated by Alexander Hamilton, and the suggestion was approved by Washington in the following letter, written only two days before his death:

MOUNT VERNON, December 12, 1799.

SIR: I have duly received your letter of the 28th ultimo, inclosing a copy of what you had written to the Secretary of War on the subject of a military academy.

The establishment of an institution of this kind, upon a respectable and extensive basis, has ever been considered by me as an object of primary importance to this country; and while I was in the chair of Government I omitted no proper opportunity of recommending it in my public speeches and otherwise to the attention of the legislature. But I never undertook to go into a detail of the organization of such an academy; leaving this task to others, whose pursuit in the path of science and attention to the arrangement of such institutions had better qualified them for the execution of it. For the same reason, I must now decline making any observations on the details of your plan; and, as it has already been submitted to the Secre-

tary of War, through whom it will naturally be laid before Congress, it might be too late for alterations, if any should be suggested.

I sincerely hope that the subject will meet with due attention, and that the reasons for its establishment, which you have so clearly pointed out in your letter to the Secretary of War, will prevail upon the legislature to place it upon a respectable and permanent footing.

With my great esteem and respects, etc.,

GEORGE WASHINGTON.

ALEXANDER HAMILTON,
Major-General.

That this Military Academy has fulfilled its military purpose as conceived by Washington, and amply justified his wisdom and foresight, the history of our great wars abundantly testifies. But it has done more than this. Its pupils, trained in subordination as well as in leadership, have always aided and directed progress along those paths through which our country is now advancing; they have been among the foremost in every community in improving the methods of education, in advancing science, in developing the material interests of the country, and in the practice of good government.

These fruits of peace are no less valuable to the country than the legitimate laurels of war, and they have been possible because the institution implants and fosters in its pupils, during the formation period of youth, that self-reliant strength of character and of integrity by means of which such results can only be attained.

While West Point can not create men, its history shows that it does develop whatever of manhood its pupils originally possess, and that it does lay a broad and solid foundation for those arts and sciences by which they become masters of their profession; and we may safely trust the guardianship of the military profession, so necessary to every nation, to the graduates of this institution, feeling sure that they will ever be ready to render just accounts of their stewardship.

In conclusion, it is gratifying to be able to say, that in the happy adjustment of the duties of the body of professors, who have themselves seen service, and of an ever-changing corps of active officers fresh from the exercise of their duties in the Army, we find the certainty of freedom from the danger of too much conservatism on the one hand, and too radical and sudden changes on the other. Hence, any important modifications of the institution can safely be left to so admirable a guardianship.

Respectfully submitted.

H. W. SLOCUM.

President.

A. J. BATTLE,

Secretary.

E. A. O'NEAL.

JOHN M. ADAMS.

HENRY FLANDERS.

W. D. F. LUMMIS.

PETER WHITE.

JOHN H. REAGAN.

S. M. CULLOM.

R. W. TOWNSEND.

ASHBEL P. FITCH.

HENRY BACON.

Hon. WILLIAM C. ENDICOTT,
Secretary of War.

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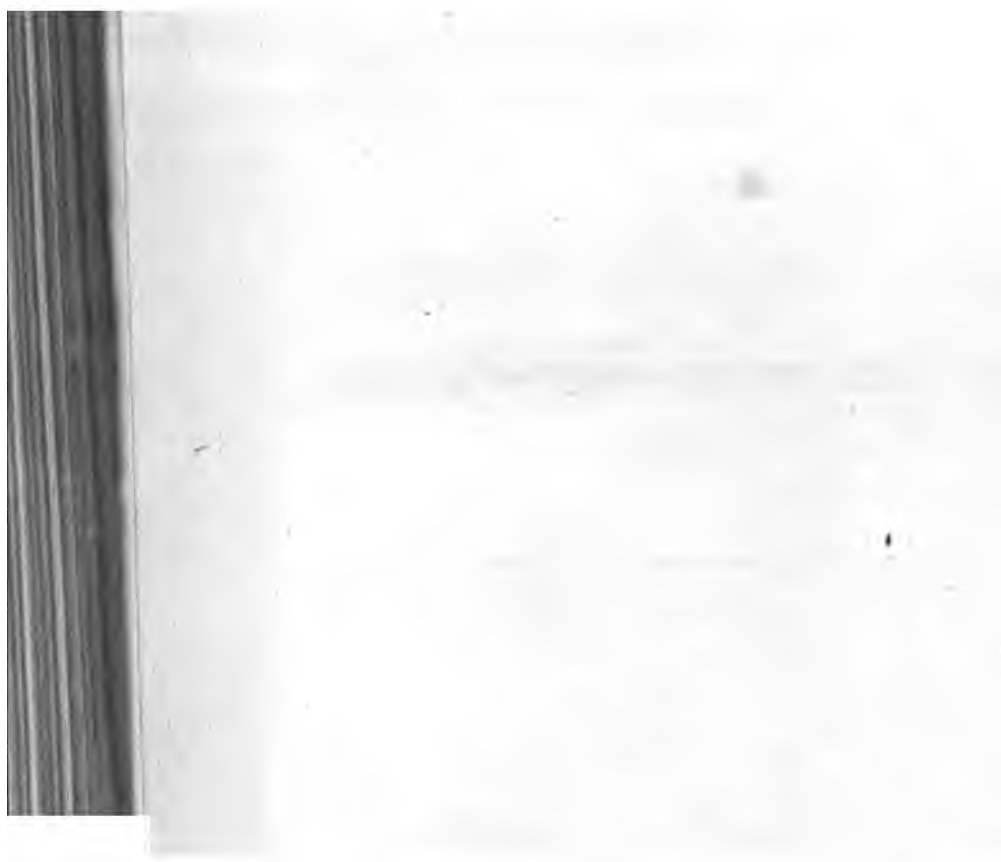
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MEDICAL MUSEUM—MONUMENT—TABLETS AT GETTYSBURGH.



REPORT
OF
COL. JOHN M. WILSON, SUPERINTENDENT OF PUBLIC BUILD-
INGS AND GROUNDS:

OFFICE OF PUBLIC BUILDINGS AND GROUNDS,
WAR DEPARTMENT,
Washington, D. C., August 1, 1888.

SIR: I have the honor to submit herewith, for the annual report of the Secretary of War, summaries of work done under my charge during the past fiscal year, as follows:

New Army Medical Museum and Library.

Monument at Washington's Headquarters, Newburgh, N. Y.

Monuments or tablets to mark the positions held by the Regular Army at the battle of Gettysburgh.

Detailed reports upon these various works have been submitted by me to the Secretary of War, from time to time during the past year.

I am, sir, very respectfully, your obedient servant,

JOHN M. WILSON,
Colonel, U. S. Army.

The SECRETARY OF WAR.

ARMY MEDICAL MUSEUM AND LIBRARY.

The main building, with its annex, was completed November 1, 1887, and transferred to the charge of the Surgeon-General of the Army.

Under the appropriation of \$7,500 made by the act of Congress approved March 3, 1887, a contract was made in September, 1887, for the construction of an additional annex to the main building, for laboratory and anatomical work.

Operations were commenced upon this annex in September, 1887, and the building was completed satisfactorily in May, 1888.

The grounds immediately around the Museum were graded and sodded and a granolithic pavement constructed on the south side, connecting the front steps with the sidewalk on B street, and a coal-tar distillate and asphalt pavement laid on the north side, connecting the annex with the main road through the Smithsonian Grounds.

A cellar for the temporary storage of ashes was constructed on the east side of the boiler-room.

*MONUMENT AT WASHINGTON'S HEADQUARTERS, NEWBURGH, N. Y.,
COMMEMORATIVE OF THE DISBANDMENT OF THE ARMY OF THE
REVOLUTION.*

By joint resolution of Congress approved March 3, 1883, an appropriation of \$25,000 was made for the erection of this monument, and by an act of the legislature of the State of New York, passed March 3, 1883, the sum of \$10,000 was appropriated for the same purpose.

Based upon plans and specifications approved by the joint select committee of Congress, a contract was made in June, 1886, with Mr. Maurice J. Power, of New York City, for the construction of the monument.

Work was commenced in August, 1886, and the monument completed, in accordance with the plans and specifications, in February, 1888.

The entire appropriation having been exhausted, the United States was unable to provide for the care of the monument, and it was temporarily transferred to the charge of the board of trustees of Washington's Headquarters, Newburgh, N. Y., until Congress shall make other arrangements for its supervision.

MONUMENTS OR TABLETS AT GETTYSBURGH.

By the act of Congress approved March 3, 1887, an appropriation of \$15,000 was made for the erection of monuments or memorial tablets for the proper marking of the position of each of the commands of the Regular Army engaged at Gettysburgh, the appropriation to be expended under the direction of the Secretary of War.

The Attorney-General having given an opinion in December, 1887, that under the terms of section 3736 of the Revised Statutes the land upon which the monuments or tablets were to be erected could not be purchased under this appropriation, no further action has been taken other than to prepare a large map of the battle-field, and to have the position occupied by the troops designated on the field and plotted on the map.

Authority for the purchase of the land is contained in the sundry civil bill for the fiscal year ending June 30, 1889, but it is believed that even after the land is purchased the terms of section 355 and 4661 of the Revised Statutes will prevent the erection of monuments until the General Government obtains consent to the purchase and cession of jurisdiction over the land from the legislature of the State of Pennsylvania.

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